

# **Return on Assets Montana State Trust Lands**

**Fiscal Year 2007**



## **Trust Land Management Division Mission**

*Manage the State of Montana's trust land resources to  
produce revenues for the trust beneficiaries while  
considering environmental factors and protecting the future  
income-generating capacity of the land*

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## **ABBREVIATIONS AND ACRONYMS**

ACB	Montana State University 2nd grant
ACI	Montana State University Morrill grant
CS	Common Schools
DB	School for the Deaf & Blind
PB	Public Buildings
SM	(M Tech) School of Mines
SNS	State Normal Schools
SRS	State Reform Schools
UM	(UNIV) University of Montana
CLO	Central Land Office
NWLO	Northwest Land Office
ELO	Eastern Land Office
SLO	Southern Land Office
NELO	Northeast Land Office
SWLO	Southwest Land Office
DNRC	Montana Department of Natural Resources and Conservation
TLMD	Trust Land Management Division
AGMB	Agriculture and Grazing Management Bureau
FMB	Forest Management Bureau
MMB	Mineral Management Bureau
REMB	Real Estate Management Bureau
FI	Forest Improvement Program
MCA	Montana Code Annotated
WSLCA	Western States Land Commissioners Association

**FY 2007 RETURN ON ASSETS  
TRUST LAND MANAGEMENT DIVISION  
MONTANA DEPARTMENT OF NATURAL RESOURCES AND  
CONSERVATION**

**I. Introduction**

The Return on Assets Report for the Trust Land Management Division (TLMD) reviews annual asset values and earnings on resources managed for the trust beneficiaries. Currently, the TLMD manages 5.1 million surface acres and 6.2 million subsurface acres, constituting 5 percent and 6 percent of Montana's total acreage, respectively. By comparative size, the TLMD surface acres are the second largest real estate holding in Montana. The information published in this FY 2007 report depicts the financial performance of the TLMD and its associated resource management programs on these land holdings.

The TLMD Return on Assets Report is comprised of two components. The first component examines all revenue sources on the same basis and time frame using a method based on current year information and techniques appropriate to each resource. The second component analyzes the return to Classified Forest Lands applying asset valuation methodology (MCA 15-44-103) required by the Montana Legislature (MCA 77-1-223).

Revenues reported in the Return on Assets Report will vary from revenues reported in the Annual Report. These differences arise due to the exclusion of certain revenues which are not included in return estimations or specific to the trust beneficiaries. In addition, the FY 2007 report features acreage realignments. These realignments denote different events including land banking, exchanges, acquisitions, and reclassification. In addition to changes in acreage data, the TLMD internal methodology for asset valuation has been altered for some bureaus.<sup>1</sup> As in previous Return on Assets Reports, the data is most accurate at the total trust and land office levels. Overall, the Trust by Land Office tabular data estimates have been improved this year and will continue to be refined over time.<sup>2</sup>

In FY 2007, the Real Estate Management Bureau's (REMB) land banking program generated approximately \$10.6 million from land sales. Harvest levels and overall revenue in the Forest Management Bureau (FMB) were down significantly in FY 2007 compared to FY 2006 due to lower demand and prices for structural lumber and panel products associated with a national down-turn in new home construction. Oil and natural gas production remained strong in FY 2007, however, coal production declined

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<sup>1</sup> This year's review of asset values included some changes in the estimation methodology which are discussed in the Appendix. One of the more important changes involves the methodology for estimating asset values for some of the land classifications.

<sup>2</sup> Tables do not always balance, particularly when rounded numbers are being used. Years identified in figures refer to fiscal years unless otherwise identified.

along with natural gas prices which resulted in an overall reduction of Mineral Management Bureau (MMB) revenue in FY 2007. Grazing lease rates and some commodity prices increased in FY 2007 leading to overall higher revenue for the Agriculture and Grazing Management Bureau (AGMB). In total, the four bureaus generated less gross revenue in FY 2007 compared to record earnings in FY 2006.

## **II. Production and Prices**

Commodity prices were generally lower in FY 2007. Oil and gas production and prices were down slightly for the year, but remain strong compared to historical averages. While coal production was up, prices were down compared to FY 2006. Therefore, overall mineral revenue and production for the year was lower in FY 2007 compared to FY 2006.

Similarly, FMB stumpage prices and harvest levels were down in FY 2007 compared to previous years. In FY 2007, 32.1 million board feet of timber was harvested from state trust lands compared to 55.0 million board feet in FY 2006. Purchasers curtailed harvesting due to lower demand and prices for finished lumber and panel products. This has created a backlog of unharvested volume going into FY 2008. While depressed markets are likely to last through FY 2008, harvest volumes and overall revenue is expected to be slightly higher than FY 2007.

AGMB prices and production were mixed with an overall increase in both agriculture and grazing revenue. While overall AGMB revenue was slightly higher in FY 2007, production of barley, wheat, and hay fell from the previous year.

The REMB gross revenue increased significantly this year due to higher residential lease lot fees associated with higher appraised property values and an increase in other easement, license, and lease fees. Revenue from land sales associated with the land banking program was also up for the year. This revenue, however, is not part of the REMB revenue used in the Return on Asset calculation since it is used to purchase replacement lands. While land sale revenue is deducted from REMB's overall revenue for the year, costs associated with the land banking program are expensed against current year revenue which may have a small, short-term negative impact on REMB's Return on Asset value but should result in higher returns over the long-term from the newly acquired lands.

While AGMB and REMB revenues were higher in FY 2007, the overall TLMD revenue was down from FY 2006 due to lower mineral and timber revenues for the year.

## A. Production

### - Oil & Gas

*Figure 1a* shows the production of oil from trust lands over the last eight years. Private operators were able to increase oil production in the last three years with the aid of technological advancements in horizontal drilling. This year's production fell slightly as compared to FY 2006. While oil extracted from trust lands represents a minuscule fraction of the greater market supply, oil revenues represent a significant fraction of total earnings in the MMB portfolio.

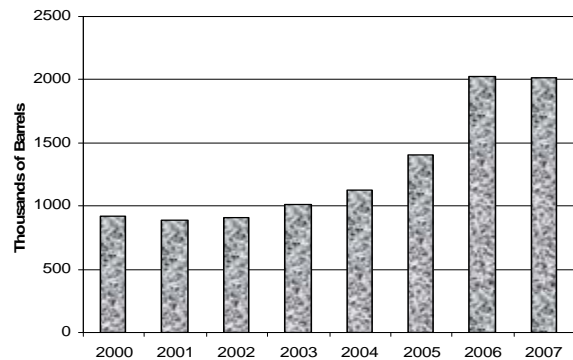


FIGURE 1a  
Oil Production on Montana State Trust Lands  
Source: MT DNRC (2007)

*Figure 1b* shows the production of natural gas in million cubic feet (MCF) from trust lands over the last eight years. The previous three years show a general increase in production followed by a slight decline in FY 2007. Compared to last year, natural gas production fell by 2.16 percent in FY 2007.

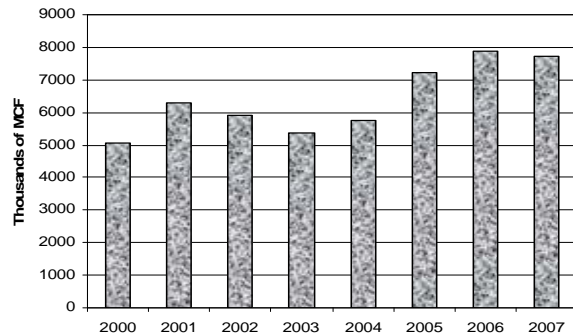


FIGURE 1b  
Gas Production on Montana State Trust Lands  
Source: MT DNRC (2007)

### - Coal

Coal production decreased 29.3 percent in FY 2007. Coal production in any one year can vary substantially as mining operations move on and off state leases. Some of the coal produced from state trust lands contains comparatively high levels of sodium restricting the available market to those power plants that can handle higher sodium coal.

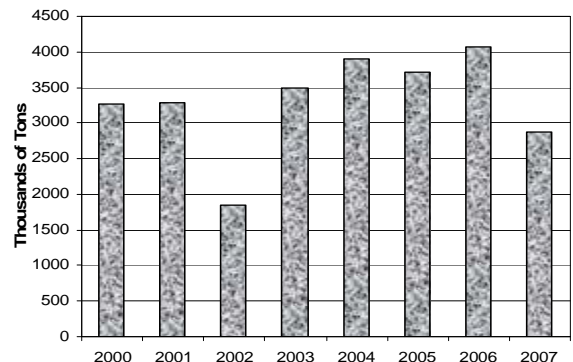


FIGURE 1c  
Coal Production on Montana State Trust Lands  
Source: MT DNRC (2007)



## - Timber

Figure 2a shows the timber harvested from bid sales and permits for FY 2000 to FY 2007. Timber harvests fluctuate from year to year depending on current price, expected future price, episodic events such as fires, and availability of logs from other sources. As FY 2007 shows, harvest levels for the year were down significantly due to depressed demand and prices for lumber and panel products.

Figure 2b shows the historic harvest level on state trust lands from 1945 to the present. Harvest levels have ranged from a high of 105 million board feet (1951) to a low of 8 million board feet (1974) with current harvest levels within this range.

## - Agriculture and Grazing

Figure 3 shows wheat production over the last four years. Wheat is the most abundant crop harvested on state trust lands. Wheat production levels are nearly nine times that of the next two highest agricultural commodities, barley and hay. Crop harvest levels are important because they impact the market lease rates for agricultural land. Compared to FY 2006, agricultural commodity production was down approximately 16 percent for barley and wheat and 8 percent for hay in FY 2007.

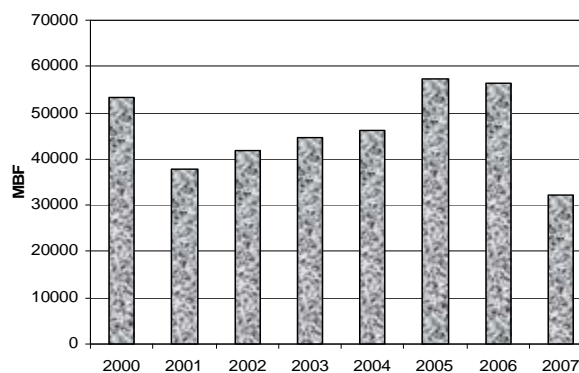


FIGURE 2a  
Timber Harvest on Montana State Trust Lands  
Source: MT DNRC (2007)

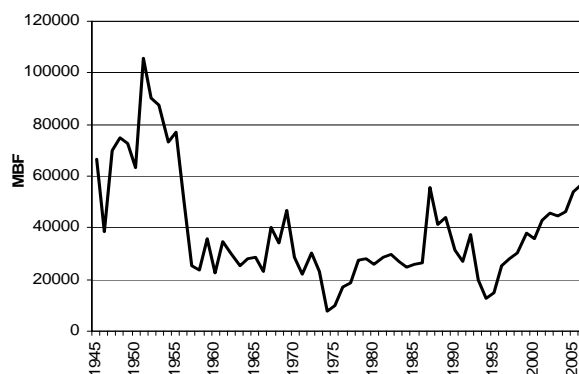


FIGURE 2b  
Timber Harvest 1945-2007  
Source: MT DNRC (2007)

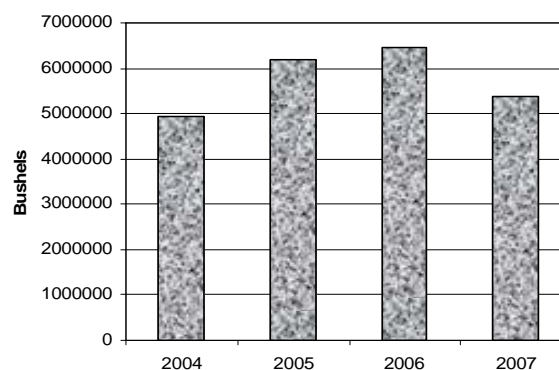


FIGURE 3  
Wheat Harvest on Montana State Trust Lands  
Source: MT DNRC (2007)

## A. Prices

Montana State Trust Land resource outputs make up a small segment of their respective resource markets. In this economic environment, the TLMD is much like a price-taking firm where market prices remain exogenous to the firm's behavior. From the supply side, prices for trust land commodities are mostly influenced by larger private firms and/or by the broader competitive market.

Supply side adjustments to a change in price primarily reduces the amount of output if prices fall, or increases output if prices rise. Reductions in output for falling prices reduces inventories and can either drive marginal unit costs up or down depending on plant capacity and harvest methods.

Demand side adjustments to a price change respond inversely to the direction of the price change. The ability of consumers to reduce consumption when a price increases is limited by the availability of substitutes and their respective prices.

Unconstrained commodity demand and supply will move the market towards an equilibrium price. Certain market conditions such as monopolies, commodity taxes and subsidies, or exogenous shocks may obstruct adjustment mechanisms and distort prices away from equilibrium. In most cases, Montana State Trust Land commodities trade on markets that are responsive to demand and supply. These markets are briefly described below.

### - Agriculture and Grazing

Grazing lease rates are directly tied to the price of beef. *Figure 4a* compares Montana and U.S. beef prices with grazing lease rates received from state trust lands. Since acres of land leased each year do not vary significantly, revenue from year to year is determined primarily on the basis of lease rates. Lease rates are adjusted based on Montana beef prices. U.S. beef prices follow much the same pattern as Montana beef prices, but Montana prices have generally been higher than the U.S. average.

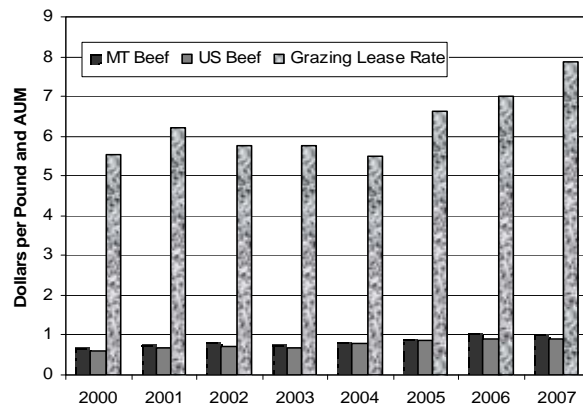


FIGURE 4a  
Beef Prices and Grazing Lease Rates  
Source: MT DNRC (2007), USDA (2007)

The return earned by the lessee and the revenue received by the state from crops grown on state agricultural property is primarily determined by production success (i.e. – bushels per acre) and commodity prices. While yields were down in FY 2007, wheat prices went up which resulted in overall higher agricultural lease revenue for the year.

Figure 4b shows the long-term prices for Montana wheat in terms of current dollars and in constant 2006 dollars.

Current dollars reflect the price of wheat in the year in which it was sold. Constant dollars are adjusted for inflation and represent the price of wheat if based on the purchasing power of the dollar in 2006. The real value of wheat has steadily declined over the years while the real costs of producing agricultural commodities have increased during this same period. The trend of diminishing profits in wheat production has only recently turned around as wheat prices have shifted up substantially in the beginning and mid parts of FY 2008.

Figure 4c illustrates the same dollar to dollar comparison for beef prices. If grain prices continue to rise, beef producers will face higher input costs reducing their respective profit margins. Steadily rising beef prices have thus far prevented a shortage in demand for grazing lands, and likewise AGMB revenues.

Overall, agricultural markets remain vulnerable to foreign agricultural imports. In some cases cheaper imports can keep domestic prices from responding to increases in demand. If a commodities price remains resistant to upward adjustments so will the demand for inputs into these markets, including land.

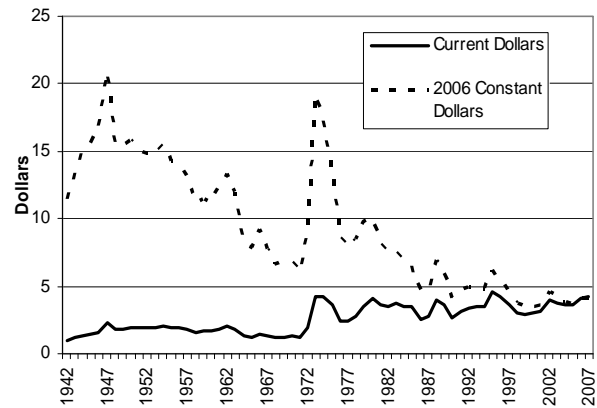


FIGURE 4b  
Montana Wheat Prices 1942-2007  
Source: USDA (2007), USDOC (2007)

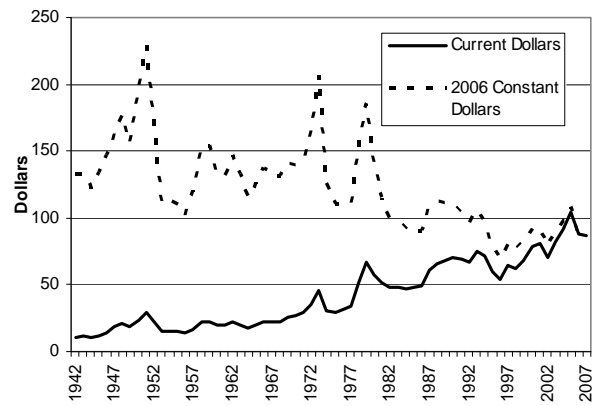


FIGURE 4c  
Montana Beef Prices 1942-2007  
Source: USDA (2007), USDOC (2007)

## - Real Estate

Easements contributed the most revenue to the REMB program in FY 2007 whereas real estate leases and licenses typically generate the most revenue. The REMB sets residential leases at 5 percent of the appraised property value and commercial leases at 2 percent less than the rate of return of the unified investment program administered by the board of investments (MCA 77-1-905). Residential lease rates are not directly tied to the housing market because the appraised property value depends on the overall market value for real property.

*Figure 5a* displays the average appraised price for real estate leases in recent years. The trend for real estate lease prices averaged a 12.3 percent annual increase from FY 1998 to FY 2007.

*Figure 5b* shows the calendar year long-term trend in housing prices in real and constant dollar prices for the United States. The constant dollar price is somewhat different than for the agriculture sector because it is based on average 1996 house characteristics. Typically, indexes are modified periodically to reflect changes in preferences by consumers for the product being measured. This index does not make these adjustments. The fact that the size of an average new single-family house increased from 1,660 square feet in 1973 to 2,434 square feet in 2005, a 46 percent increase, is not accounted for in this index. Towards the end of FY 2007, housing markets began to slow signaling the initial turn around in what is now a nation-wide housing market recession.

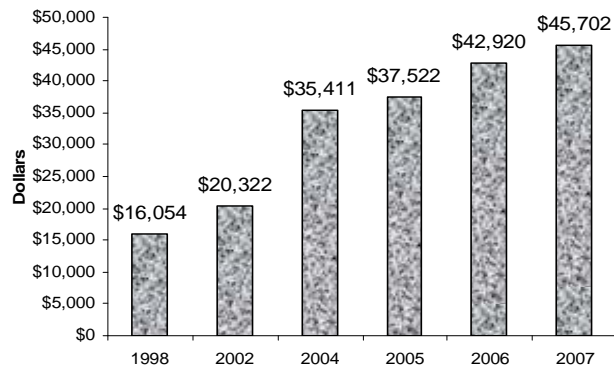


FIGURE 5a  
Average Real Estate Lease Value on  
Montana State Trust Lands  
Source: MT DNRC (2007)

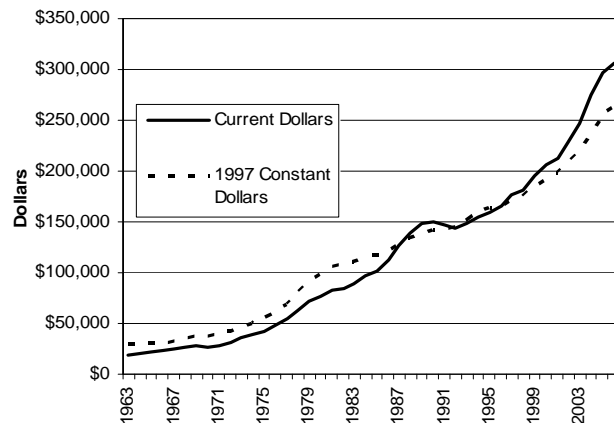


FIGURE 5b  
U.S. Housing Prices 1963-2007  
Source: USDOC

## - Oil & Gas

*Figure 6a* depicts the price received for oil produced on state trust lands since FY 2000. Similar to FY 2006, FY 2007 oil prices remain high at \$55.85 per barrel. With a steady growth in world demand, oil prices are expected to maintain an upward trend, especially in the U.S. where domestic production lags far behind demand.

*Figure 6b* shows natural gas prices for the period FY 2000 to FY 2007. FY 2007 natural gas prices fell to \$5.13 per MCF, a 22.6 percent drop from FY 2006. Despite this decline, both worldwide and national reserves for natural gas from all sources are quite large. Increased prices for oil may make development of both coal bed methane and natural gas reserves more economical, which may ultimately result in increased revenues from trust lands.

*Figure 6c* shows the price of crude oil from 1949 to 2007. From 1949 to the early '70s, the price was nearly constant in both current and constant dollars. Prices increased substantially in the early '80s with current dollar prices reaching nearly \$40 and constant dollar prices over \$90. After the high of the early '80s, oil prices dropped below the peak and did not return to the pre 1980-levels until very recently. These higher prices have induced increased exploration and production efforts.

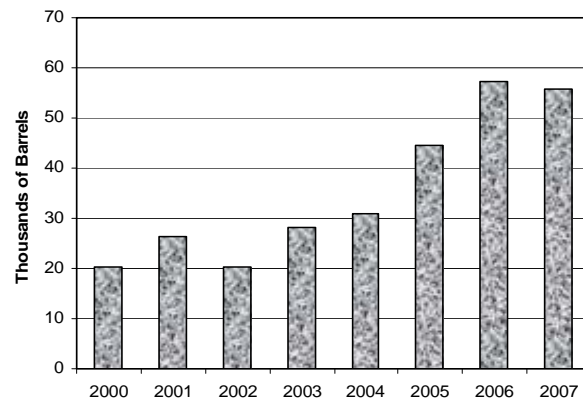


FIGURE 6a  
Oil Prices on Montana State Trust Lands  
Source: MT DNRC (2007)

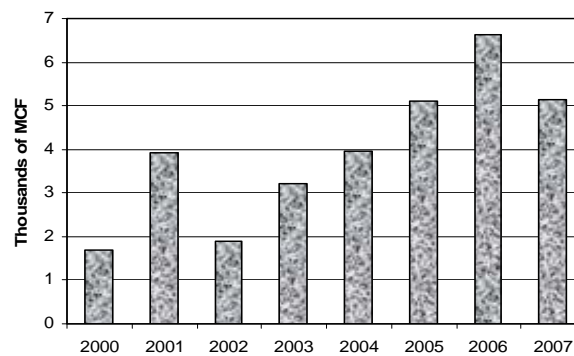


FIGURE 6b  
Natural Gas Prices on Montana State Trust Lands  
Source: MT DNRC (2007)

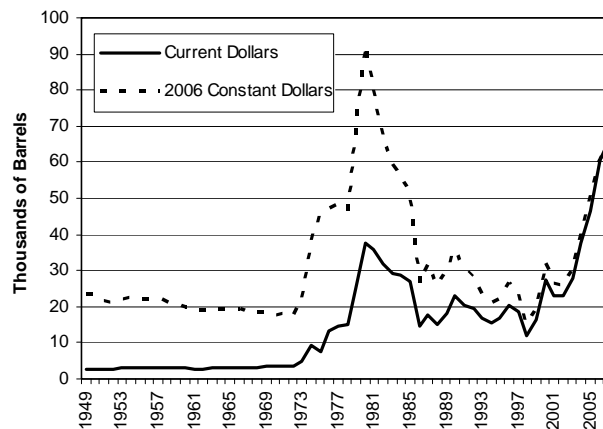


FIGURE 6c  
U.S. Crude Oil Prices  
Source: U.S. EIA (2007)

## - Coal

Figure 6d illustrates the prices received for coal produced from state lands. Coal prices on state trust land increased 10.6 percent in FY 2007. With increasing costs of other energy alternatives, long-term forecasts are for stable or slightly increasing coal prices.

Figure 6e shows long-term coal prices. Similar to the price of oil, coal prices increased dramatically in the '80s then decreased until 2002 when prices began to rise. Unlike oil however, the long-term real price of coal is declining slightly. In recent years, this has created declining profits for coal producers since real costs have continued to increase. Part of the reason for the decline is that the coal industry at the producer level is much more competitive with market prices generally set by supply and demand. If oil prices remain high, additional demand for coal as a substitute for petroleum and natural gas in some uses could improve prices for coal.

## -Timber

Figure 7 contrasts the *Random Lengths* composite lumber price index with the average stumpage bid price received by the state for timber sold from FY 2000-FY 2007.<sup>3</sup> The *Random Lengths* index is a wholesale composite index price that reflects both national and regional lumber prices. In FY 2004, prices increased strongly which continued into FY 2005. In FY 2006 and 2007, the *Random Lengths* price declined while the average stumpage bid price for timber sold by the bureau

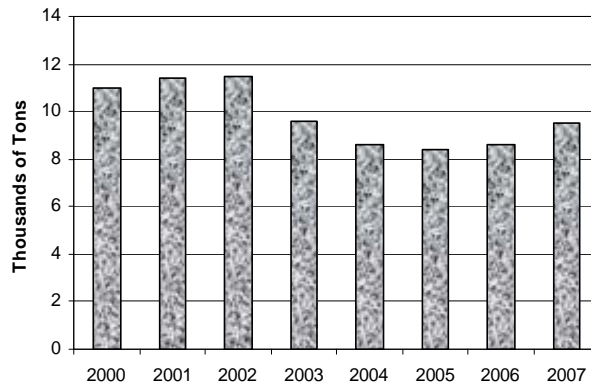


FIGURE 6d  
Coal Production on Montana State Trust Lands  
Source: MT DNRC (2007)

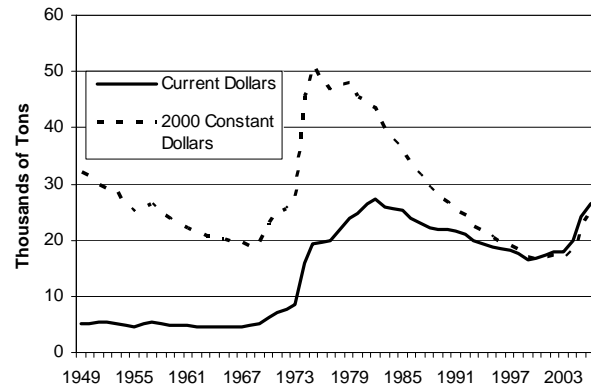


FIGURE 6e  
Coal Prices on Montana State Trust Lands  
Source: U.S. EIA(2007)

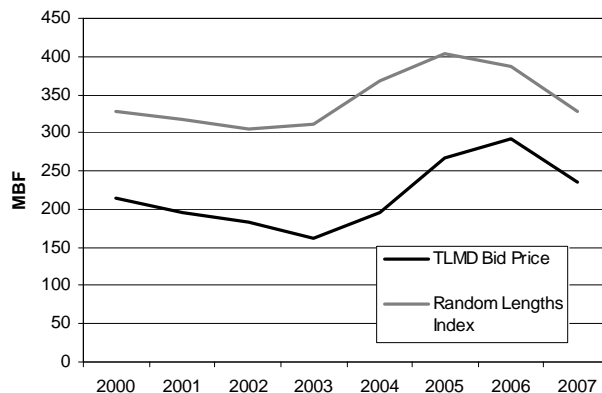


FIGURE 7  
Stumpage Bid Prices on Montana State Trust Lands  
Source: MT DNRC (2007), Random Lengths (2007)

<sup>3</sup> This does not include funds collected for the Forest Improvement Program.

lagged slightly behind. The price decrease exhibited in the 2007 *Random Lengths* index reflects the current wholesale market. Decreases in the wholesale market are primarily a result of a slowdown in new home construction and increased foreign timber imports.

### III. Revenue, Expenses, and Asset Appreciation

The TLMD rate of return on assets is calculated using the Western States Land Commissioners Association (WSLCA) formula:

$$\frac{(\text{Gross Revenue} - \text{Management \& Development Expense}) + (\text{Ending Asset Value} - \text{Beginning Asset Value})}{\text{Beginning Asset Value}}$$

This financial metric is not intended to represent income flow to the trusts, but the annual realized return of a specific asset class or all asset classes combined. Appreciation in land values cannot be used to fund school expenditures, but is considered part of the total return on an asset. Increased land values contribute to the revenue of the trusts only after they are captured through sale or increased rental or lease rates. While passive and non-market values and benefits such as open space for recreation, habitat for wildlife, and other ecosystem services affect trust land, it is difficult to monitor their influence over time on revenue streams and land values. The scope of this report remains one of monetary value related to the trusts and does not attempt to quantify these non-market values.<sup>4</sup>

#### A. Revenue

Revenue generating activities on trust lands includes timber sales, mineral sales and leases, agricultural sales and leases, and real estate sales and leases. *Figure 8* shows contributions from each source for the last nine years. On average, minerals generated the largest amount of revenue, followed in order by agriculture, timber, and real estate. Even with the drop in natural gas production in FY 2007, mineral revenues remain strong relative to the other sources. As discussed previously, timber harvest levels and revenues

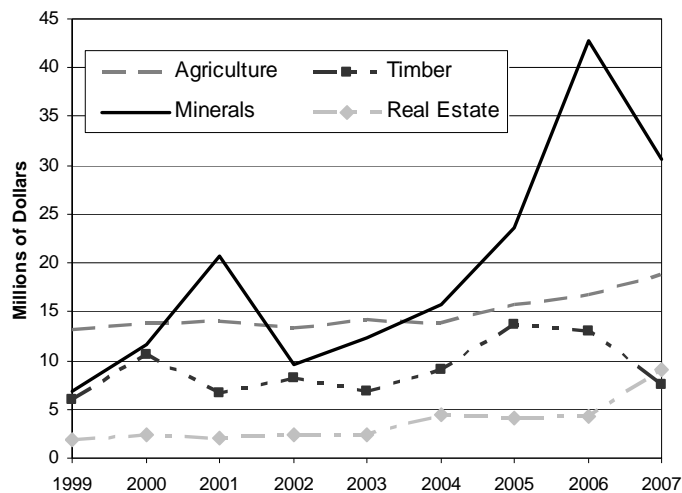


FIGURE 8  
Trust Gross Revenue by Bureau 1999-2007  
Source: MT DNRC (2007)

<sup>4</sup> The introduction of non-market values would primarily affect the asset values and returns on lands with recreational and/or ecological significance.

are lower than average due to declining market conditions. The increase in real estate revenue for FY 2007 is mainly a result of an isolated easement payment.

*Table 1* represents gross revenue for the last five fiscal years. These numbers are presented in the Department of Natural Resources and Conservation's (DNRC) Annual Report for each fiscal year except that land sales, trust interest, and other revenues are not included.<sup>5</sup> Revenues include a small amount of earnings for non-trust land such as Agricultural Experiment Station lands that the DNRC manages, but these funds do not contribute to trust earnings. These small amounts are deducted from the analysis in the Return on Assets Report, but are included in the first three tables for comparison and historical purposes. *Table 1* also includes recreational use revenues. Oversight of this program has shifted this year from the REMB to the AGMB.<sup>6</sup> Forest improvement fees (FI) are not included here or in other tables in the return on asset analysis because they are designated as investment funds for improving the future return on forested lands.<sup>7</sup>

Land sales are isolated in *Table 1* and are not used in the return on assets calculation. Land sales are part of bureau revenues, but represent a one time exchange of asset. These revenues are either deposited directly into the trust permanent fund or into land banking accounts where earned interest is then deposited into the trust permanent fund. In FY 2007 land was sold through the land banking program. These funds were deposited into land banking accounts for the purchase of additional resources at a later point in time.

TABLE 1  
FY 2007 Trust Gross Revenue by Bureau

Bureau	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
AGMB	\$14,116,247	\$13,887,202	\$15,793,549	\$16,852,496	\$18,814,634
FMB	6,915,128	9,013,900	13,651,632	13,000,338	7,482,894
REMB	2,367,469	4,528,203	4,121,170	4,210,017	9,013,114
MMB	12,282,648	15,810,987	23,641,848	42,716,187	30,561,328
Subtotal	\$35,681,492	\$43,240,292	\$57,208,199	\$76,779,038	\$65,871,970
Land Sales	19,744	2,900	25,797	0	10,912,599
Total	\$35,701,236	\$43,243,192	\$57,233,996	\$76,779,038	\$76,784,569

*Table 1* represents gross earnings by source. However, the return on assets calculation requires a net figure that depicts earnings after expenses are deducted. Therefore, *Table 2* shows total expenses for each program. *Table 2* figures represent actual personnel and operating expenses for each program, which are tracked in the statewide accounting program (SABHRS), and overhead expenses, which are allocated to each of the four TLMD programs based on the proportion of full time employees (FTE) in each bureau.<sup>8</sup>

<sup>5</sup> Fiscal year will always mean "state fiscal year," i.e., July through June, and not "federal fiscal year."

<sup>6</sup> AGMB gross revenue includes \$1,092,280 from the recreational use program in addition to the balance of \$17,722,354 as reported in the 2007 DNRC Annual Report. In *Table 13*, *Table 14*, and the *Appendix* \$102,674 of the recreational use funds have been redistributed to forested acres in the FMB. Prior to FY 2007, the recreational use program revenues were included in REMB.

<sup>7</sup> Details on FI fees are available in *Table A7* of the *Appendix*.

<sup>8</sup> FTE information is available in *Table E1* of the *Appendix*.



TABLE 2  
FY 2007 Trust Expenditures by Bureau

Bureau	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
AGMB	\$1,043,273	\$1,514,686	\$1,636,259	\$1,565,769	\$1,384,217
FMB	3,776,429	4,230,626	4,576,621	4,738,218	5,195,951
REMB	1,161,081	1,102,429	1,320,287	1,331,879	1,137,915
MMB	971,912	641,074	670,227	966,483	1,083,411
Total	\$6,952,695	\$7,488,815	\$8,203,394	\$8,602,350	\$8,801,493

Table 3 shows net trust revenues generated from FY 2003 to FY 2007. These figures are derived by deducting total expenditures Table 2 from the subtotal gross revenue Table 1.

TABLE 3  
FY 2007 Trust Net Revenue by Bureau

Bureau	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
AGMB	\$13,072,974	\$12,372,516	\$14,157,290	\$15,286,727	\$17,430,417
FMB	3,138,699	4,783,274	9,075,011	8,262,120	2,286,943
REMB	1,206,388	3,425,774	2,800,883	2,878,138	7,875,199
MMB	11,310,736	15,169,913	22,971,621	41,749,704	29,477,917
Total	\$28,728,797	\$35,751,477	\$49,004,805	\$68,176,689	\$57,070,477

Figure 9 displays the distribution of revenue by each trust for FY 2003 through FY 2007. The Common Schools Trust receives over four times the revenue from trust land as all of the other trusts combined. In FY 2007, distribution of funds to Common Schools dropped relative to other trusts where small proportional gains have consequently appeared.

Gross revenues by land office and trust are shown in Table 4. Since non-trust revenues have been deducted, Table 4 does not reflect revenues distributed to the Agricultural Experiment Station, Forest Improvement, Galen, General Fund, Montana Department of Transportation, or land sales.

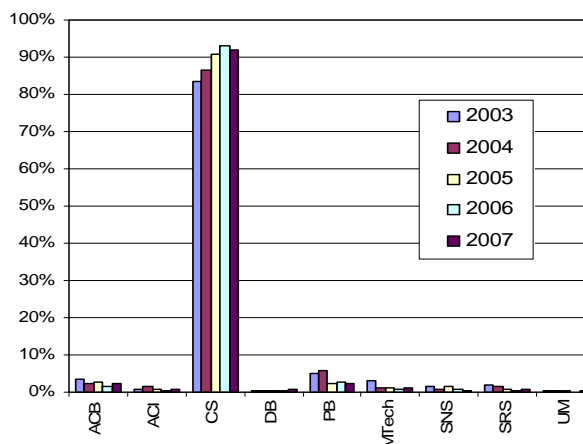


FIGURE 9  
Gross Revenue Distribution by Trust  
Source: MT DNRC (2007)

TABLE 4  
FY 2007 Trust Gross Revenue by Land Office and Trust

Trust	CLO	ELO	NELO	NWLO	SLO	SWLO	Total	(%)
ACB	22,977	132	1,986	379,948	882	943,217	1,349,142	2.1%
ACI	117,358	917	155,340	128,736	14,196	6,334	422,881	0.6%
CS	7,852,666	19,167,474	15,747,712	9,521,386	5,831,213	1,811,191	59,931,642	92.0%
DB	155,112	0	36,510	314,292	1,242	16,251	523,407	0.8%
PB	393,339	5,817	69,366	386,934	10,252	626,682	1,492,389	2.3%
SM	163,900	583	103,429	405,261	37	10,706	683,917	1.1%
SNS	61,632	5,780	50,117	34,425	965	3,689	156,607	0.2%
SRS	148,513	13,621	39,335	123,423	16,369	73,057	414,319	0.6%
UM	70,440	26,567	44,372	0	695	3,253	145,327	0.2%
Total	8,985,937	19,220,891	16,248,168	11,294,406	5,875,849	3,494,380	\$65,119,632	100.0%
(%)	13.8%	29.5%	25.0%	17.3%	9.0%	5.4%	100.0%	

In FY 2007, gross trust revenues decreased by \$10.3 million compared to FY 2006. While gross revenues were up by almost \$6 million dollars in the Real Estate Management Bureau, gross revenues for the Forest and Minerals Management Bureaus were down in FY 2007.

## B. Expenses

The TLMD utilizes a portion of trust receipts to cover the costs of managing trust lands. These costs reduce funds available for distribution. *Table 5* shows these costs without forest improvement expenditures, prorated on the basis of the TLMD employee distribution and gross revenue to the trusts.

TABLE 5  
FY 2007 Trust Expenditures by Land Office and Trust

Trust	CLO	ELO	NELO	NWLO	SLO	SWLO	Total	(%)
ACB	1,848	10	247	251,426	66	235,868	489,465	5.6%
ACI	8,302	69	8,819	75,954	1,459	480	95,083	1.1%
CS	846,095	932,545	1,091,190	3,010,870	274,832	910,383	7,065,913	80.3%
DB	11,754	0	2,749	207,031	159	1,920	223,613	2.5%
PB	36,277	513	4,426	247,435	767	403,216	692,634	7.9%
SM	12,589	44	6,672	54,677	3	5,617	79,600	0.9%
SNS	5,084	236	3,369	16,929	72	443	26,134	0.3%
SRS	16,355	1,282	3,119	85,519	1,266	8,801	116,343	1.3%
UM	7,043	1,727	3,240	0	52	645	12,707	0.1%
Total	945,347	936,425	1,123,831	3,949,840	278,676	1,567,374	\$8,801,493	100.0%
(%)	10.7%	10.6%	12.8%	44.9%	3.2%	17.8%	100.0%	

## C. Net Revenue

The amounts shown in *Table 6* reflect the difference between revenues and expenses for program administration. These numbers do not represent the amounts distributed to the schools, but an estimate of net earnings by trust. Earnings are redistributed based on criteria associated with each grant.

TABLE 6  
FY 2007 Trust Net Revenue by Land Office and Trust

Trust	CLO	ELO	NELO	NWLO	SLO	SWLO	Total	(%)
ACB	21,129	122	1,739	128,522	816	707,349	859,677	1.5%
ACI	109,056	848	146,521	52,782	12,737	5,854	327,798	0.6%
CS	7,006,571	18,234,929	14,656,522	6,510,517	5,556,381	900,808	52,865,729	93.9%
DB	143,358	0	33,761	107,261	1,083	14,331	299,794	0.5%
PB	357,062	5,304	64,939	139,499	9,484	223,466	799,755	1.4%
SM	151,312	540	96,757	350,584	34	5,090	604,316	1.1%
SNS	56,547	5,543	46,747	17,497	893	3,246	130,474	0.2%
SRS	132,158	12,339	36,217	37,904	15,103	64,256	297,976	0.5%
UM	63,397	24,840	41,132	0	643	2,608	132,620	0.2%
Total	8,040,590	18,284,466	15,124,336	7,344,566	5,597,174	1,927,007	\$56,318,139	100.0%
(%)	14.3%	32.5%	26.9%	13.0%	9.9%	3.4%	100.0%	

Figure 10 displays net revenues from FY 2002 to FY 2007. Revenue shifted from \$66,839,000 in FY 2006 to \$56,318,139 in FY 2007. This change represents a 15 percent decrease in annual net revenue. However, FY 2007 was comparably better than years prior to FY 2006, remaining 15 percent higher than FY 2005 net revenue.

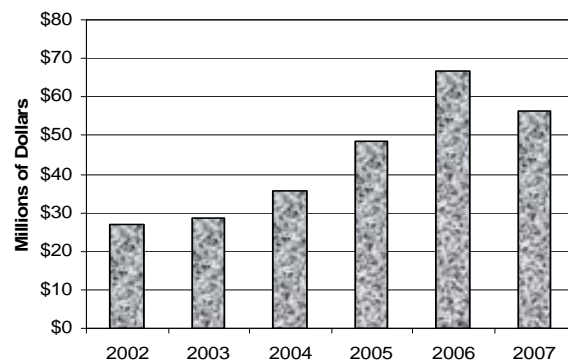


FIGURE 10  
Trust Net Revenue 2002-2007  
Source: MT DNRC (2007)

#### D. Asset Value and Appreciation

Total asset value represents the sum of all asset values from each of the revenue-earning activities associated with trust lands. Detail on these estimates can be found in the *Appendix*. The following tables display only results from the aggregation of TLMD surface activities.<sup>9</sup>

Table 7 shows the total surface acreage by land office and trust. This information is used to prorate assets when they cannot be directly allocated from revenue and other data. Adjustments were made to the acreage distribution table in FY 2007 following a series of land sales, acquisitions, and reclassifications.<sup>10</sup>

<sup>9</sup> From this point forward subsurface (mineral) activities are not included in the analysis. Generally, mineral values must be estimated from methods which parameterize multiple unknown variables. The large number of unknown variables makes it difficult to achieve a reliable year-to-year subsurface value estimation.

<sup>10</sup> Sub columns in Table 7 and Table 8 do not include 1,257.61 acres belonging to Veteran's Home. These acres are only included in the count of total surface acreage (5,158,258).

TABLE 7  
FY 2007 Surface Acres by Land Office and Trust

Trust	CLO	ELO	NELO	NWLO	SLO	SWLO	Total	(%)
ACB	9,497	0	0	12,261	0	9,665	31,424	0.6%
ACI	37,552	480	14,925	3,425	3,578	3,495	63,455	1.2%
CS	976,855	1,223,735	1,651,059	225,244	374,371	175,842	4,627,647	89.7%
DB	22,778	2,600	3,860	8,627	0	1,195	39,061	0.8%
PB	100,026	1,524	14,126	40,697	0	30,616	186,991	3.6%
SM	25,521	228	18,585	11,240	0	3,867	59,440	1.2%
SNS	30,991	723	17,609	10,205	0	3,926	63,454	1.2%
SRS	46,634	201	11,155	1,309	3,249	4,988	67,535	1.3%
UM	3,680	2,694	9,435	248	480	1,437	17,973	0.3%
Total	1,253,535	1,232,185	1,740,753	313,255	381,678	235,031	5,158,258	100.0%
(%)	24.3%	23.9%	33.7%	6.1%	7.4%	4.6%	100.0%	

Table 8 shows acreage by land office and revenue-generating activity. The largest share of trust lands, both surface and subsurface (minerals), exists in the Northeastern Land Office (NELO).

TABLE 8.  
FY 2007 Classified Acres by Bureau and Land Office

Bureau	CLO	ELO	NELO	NWLO	SLO	SWLO	Total	(%)
Agriculture	123,621	78,153	350,454	776	18,616	1,074	572,693	11.1%
Grazing	1,083,793	1,153,786	1,389,176	14,368	360,870	80,807	4,082,800	79.2%
Forest Mgmt.	31,028	0	800	296,302	0	152,418	480,548	9.3%
Mining Mgm	1,761	1,020	2,439	354	444	283	6,301	0.1%
Real Estate	15,093	245	1,599	1,809	2,192	733	21,671	0.4%
Surface Total	1,253,535	1,232,185	1,742,028	313,255	381,678	235,031	5,158,258	100.0%
(%)	24.3%	23.9%	33.8%	6.1%	7.4%	4.6%	100.0%	

Estimated asset values for regional surface lands by trust are exhibited in Table 9 and Table 10 for FY 2006 and FY 2007, respectively. These asset values are based on all surface sources and adjusted for possible use conflicts.

TABLE 9  
FY 2006 Asset Values by Land Office and Trust

Trust	CLO	ELO	NELO	NWLO	SLO	SWLO	Total	(%)
ACB	9,786,270	0	0	19,764,769	0	12,220,273	41,771,311	1.2%
ACI	32,431,548	156,960	7,724,439	5,562,688	2,135,511	4,643,681	52,654,826	1.5%
CS	837,083,281	402,680,030	868,479,119	372,522,841	224,715,345	241,531,053	2,947,011,669	85.3%
DB	19,970,343	863,045	2,019,826	13,860,643	0	1,380,345	38,094,201	1.1%
PB	87,843,930	498,476	7,304,886	64,819,072	0	34,154,491	194,620,854	5.6%
SM	22,056,121	74,677	9,642,216	19,299,904	0	4,197,955	55,270,874	1.6%
SNS	25,118,202	236,372	9,394,542	16,387,449	0	4,327,968	55,464,534	1.6%
SRS	42,955,201	98,388	5,764,436	2,065,540	1,877,812	5,658,085	58,419,462	1.7%
UM	3,032,959	899,640	4,880,737	449,505	277,440	1,650,758	11,191,039	0.3%
Total	1,080,277,853	405,507,587	915,210,202	514,732,411	229,006,108	309,764,609	\$3,454,498,769	100.0%
(%)	31.3%	11.7%	26.5%	14.9%	6.6%	9.0%	100.0%	

TABLE 10  
FY 2007 Asset Values by Land Office and Trust

Trust	CLO	ELO	NELO	NWLO	SLO	SWLO	Total	(%)
ACB	10,243,170	0	0	20,950,655	0	12,835,370	44,029,195	1.2%
ACI	34,021,309	163,238	8,033,416	5,897,012	2,241,498	4,899,244	55,255,717	1.5%
CS	878,179,656	418,782,082	903,155,580	395,206,670	235,864,203	254,960,697	3,086,148,888	85.3%
DB	20,941,925	897,567	2,100,619	14,692,282	0	1,449,362	40,081,754	1.1%
PB	92,118,084	518,415	7,597,082	68,708,216	0	35,889,106	204,830,903	5.7%
SM	23,131,883	77,664	10,027,679	20,465,099	0	4,408,542	58,110,867	1.6%
SNS	26,363,846	245,827	9,767,198	17,370,696	0	4,545,056	58,292,623	1.6%
SRS	44,949,825	101,941	5,994,831	2,189,472	1,971,703	5,940,989	61,148,762	1.7%
UM	3,183,573	935,625	5,075,967	478,445	291,312	1,735,994	11,700,916	0.3%
Total	1,133,133,272	421,722,359	951,752,373	545,958,546	240,368,715	326,664,360	\$3,619,599,625	100.0%
(%)	31.3%	11.7%	26.3%	15.1%	6.6%	9.0%	100.0%	

All methods for establishing asset values for surface resources have been updated in this FY 2007 report. The most significant update includes the removal of subsurface values from the aggregate asset value estimation. For comparative purposes, FY 2007 methodologies have been applied to FY 2006 as shown in *Table 9*. The values in this table will not match those reported in the FY 2006 Return on Assets Report because of the FY 2007 method changes.

*Figure 11* demonstrates the relative increase in asset value from last year. Total surface asset value increased from approximately \$3.45 billion in FY 2006 to \$3.62 billion in FY 2007, a relative increase of 4.9 percent.

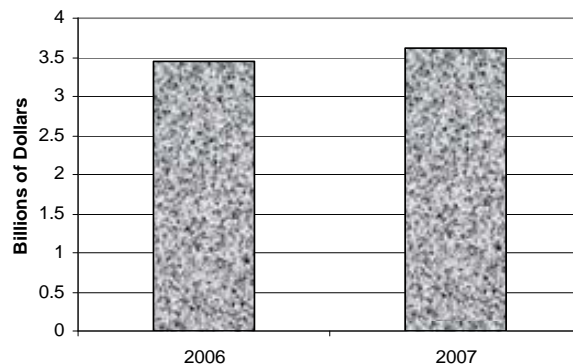


FIGURE 11  
Montana State Trust Lands Asset Value  
Source: MT DNRC (2007)

For the past two years, surface values for each land class have been determined by applying average market land values and appreciation rates within each land office.

Agricultural land valuations continue to be based on information from sales and from expertise on land values both within and outside the division. Previously, agricultural land values were based on the “2000 Agricultural Lands Appraisal” prepared by the Montana Department of Revenue for assessing property tax on agricultural properties. Estimates will be updated each year to reflect changes in the market for agricultural lands. Timber land values have been updated to reflect new information about the values of timber land gained from actual sales and acquisition combined with bureau and land office expertise on land values. Timber asset values and appreciation for the legislatively mandated return assessment (MCA 77-1-223) are based on an alternative method (MCA 15-44-103).

Asset values grow annually when increases in resource and land prices are observed. For real estate, increases in residential lease prices correspond to rising demand for recreational housing. In the case of agriculture and forest lands, asset values reflect

growing conditions, market demand for food and wood inputs, and competing economic uses for the landscape. Due to real estate and commercial development potential, some agriculture and forest land asset values in Montana have grown disproportionate to their resource related cash flows. When land prices rise due to development potential, this can tighten regional natural resource industries by increasing market entry costs and exit incentives.

Figure 12 displays the average asset value per acre by management bureau. The comparatively large asset value per acre for the REMB (\$5,069) is the result of the substantial proportion of the REMB acreage existing in the high value per acre commercial and residential lots. Forestry, agriculture, and grazing lands operated by the TLMD have average per-acre values of \$1,479, \$627, and \$596, respectively.

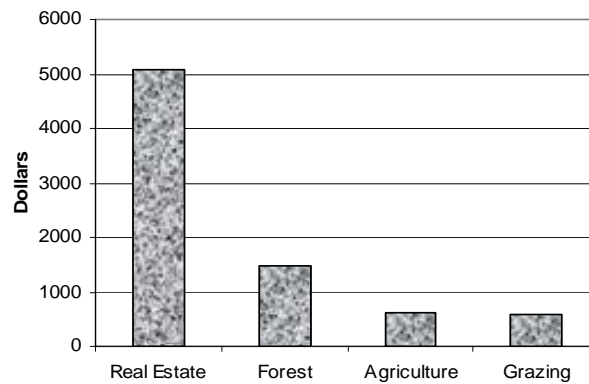


FIGURE 12  
Average per Acre Asset Value FY 2007  
Source: MT DNRC (2007)

The total return shown in *Table 11* includes net revenue and an asset appreciation when appropriate. In all cases, appreciation of the asset exceeds the direct earnings from surface activities.

TABLE 11  
FY 2007 Total Return by Land Office and Trust

Trust	CLO	ELO	NELO	NWLO	SLO	SWLO	Total	(%)
ACB	468,152	55	1,694	1,318,170	367	1,329,135	3,117,572	1.6%
ACI	1,643,358	6,660	382,032	388,554	115,401	258,197	2,794,201	1.5%
CS	45,826,586	19,398,983	42,581,192	29,271,880	12,248,087	14,367,688	163,694,416	85.0%
DB	1,063,461	34,522	114,900	940,991	1,098	81,920	2,236,891	1.2%
PB	4,581,291	23,043	335,594	4,030,908	4,264	1,945,308	10,920,407	5.7%
SM	1,224,351	3,230	452,086	1,516,653	15	214,331	3,410,666	1.8%
SNS	1,299,396	9,767	409,857	1,000,634	401	219,972	2,940,028	1.5%
SRS	2,066,891	11,481	262,680	163,263	101,064	342,625	2,948,004	1.5%
UM	214,111	54,433	232,912	28,940	14,161	86,672	631,229	0.3%
Total	58,387,597	19,542,173	44,772,946	38,659,992	12,484,857	18,845,849	\$192,693,415	100.0%
(%)	30.3%	10.1%	23.2%	20.1%	6.5%	9.8%	100.0%	

This year's total return cannot effectively be compared to prior years. Again, this is due to changes in methodologies and the removal of mineral values from the aggregate estimates.

*Table 12* shows the rate of return on assets for all trust lands. The total return statewide in FY 2007 is 5.6 percent. Since appreciation contributes a greater proportion than revenue of the total return, lands with higher appreciation rates will tend to have higher rates of return. Unusually high rates of return can indicate a one-time occurrence or

windfall. The overall distribution of assets tends to be more accurate than the detail distribution, which depends heavily on land ownership patterns.

TABLE 12  
FY 2007 Rate of Return on Asset by Land Office and Trust

Trust	CLO	ELO	NELO	NWLO	SLO	SWLO	Total
ACB	4.8%	0.0%	0.0%	0.0%	0.0%	10.9%	7.5%
ACI	5.1%	4.2%	4.9%	7.0%	5.4%	5.6%	5.3%
CS	5.5%	4.8%	4.9%	7.9%	5.5%	5.9%	5.6%
DB	5.3%	0.0%	5.7%	0.0%	0.0%	0.0%	5.9%
PB	5.2%	4.6%	4.6%	0.0%	0.0%	5.7%	5.6%
SM	5.6%	4.3%	4.7%	7.9%	0.0%	5.1%	6.2%
SNS	5.2%	4.1%	4.4%	0.0%	0.0%	5.1%	5.3%
SRS	4.8%	11.7%	4.6%	0.0%	5.4%	0.0%	5.0%
UM	7.1%	6.1%	4.8%	6.4%	5.1%	5.3%	5.6%
Total	5.4%	4.8%	4.9%	7.5%	5.5%	6.1%	5.6%

#### IV. Summary

Table 13 and Table 14 provide returns by bureau and asset class including the Trust and Legacy Fund as reported by the Board of Investments Annual Report. Table 13 separates out the relative contribution of net revenue and appreciation in each bureau. A larger portion of total return comes from appreciation. The annual rate of return from revenue and land appreciation is 0.8 percent and 4.8 percent, respectively.

TABLE 13  
FY 2007 Trust Returns by Bureau<sup>11</sup>

Source	Net Revenue	Net Revenue / Assets	Appreciation	Appreciation / Assets	Total Return	Annual Rate of Return
Agriculture	\$9,634,225	2.8%	\$15,053,322	4.4%	\$24,687,548	7.2%
Grazing	7,693,518	0.3%	107,586,112	4.6%	115,279,630	4.9%
Forest Mgmt	2,389,619	0.4%	37,908,044	5.6%	40,297,662	6.0%
Real Estate	7,875,199	7.3%	4,553,378	4.2%	12,428,576	11.5%
Total	\$27,592,561	0.8%	\$165,100,856	4.8%	\$192,693,416	5.6%
Source	2007 Year-End Balance		Annual Increase	Annual Increase	Annual Income	Annual Rate of Return
Trust and Legacy Fund*	\$428,153,530		\$4,999,795	1.2%	\$26,474,491	6.2%

\*Source: Montana Board of Investments Annual Report (2007)

<sup>11</sup> Trust resources are not managed in the same manner as privately held resources. In addition to providing revenue, other social and political issues are considered in most economic decisions associated with managing trust assets. Consequently, evaluating trust performance solely on the basis of the rate of return without considering all of the goals and objectives of trust asset management could lead to inaccurate conclusions about the “financial” management of trust assets.



Table 14 shows the estimated annual return by WSLCA asset classification and compares these values with the Trust and Legacy Fund annual return and mean government bond absolute returns.

At the aggregate level it is useful to identify an alternative return, representing the cost of capital. Such a return can be used to test the efficiency of each asset class. Principally, asset classes which improve on the designated alternative return can be thought of as adding economic value to the trusts.

There are certain caveats in concern of identifying the right alternative return to use for this efficiency test. For one, some components of land investments are inflationless, or real, such as timber growth. For a proper comparison of these inflationless components with an alternative return, the return must first be adjusted for inflation.

A second caveat relates to the deviation of annual returns from long-term trends. Multi-year mean returns are generally more appropriate in the evaluation of assets as they help identify and neutralize the influence of outlier annual returns.<sup>12</sup> In the case of the Trust and Legacy Fund, which is invested entirely in bonds, the long-term government bond return is representative of the funds long-term trend.

TABLE 14  
FY 2007 Trust Returns by WSLCA Asset Class

Asset Class	Surface Acres	2006 Asset Value	Net Revenue	Appreciation	2007 Return
Agriculture (Dryland)	562,222	\$317,592,632	\$9,224,331	\$13,176,055	7.1%
Agriculture (Irrigated)	10,471	26,721,577	409,894	1,870,510	8.5%
Range Lands	4,082,800	2,329,095,699	7,693,518	107,586,112	4.9%
Forest Lands	480,548	672,853,048	2,389,618	37,908,044	6.0%
Real Estate (Commercial)	5,583	62,108,379	6,668,431	2,632,348	15.0%
Real Estate (Residential)	1,870	34,697,850	1,126,172	1,470,604	7.5%
Real Estate (Conservation)	14,218	11,260,656	80,595	450,426	4.7%
<b>Total</b>	<b>5,157,712</b>	<b>\$3,454,329,841</b>	<b>\$27,592,560</b>	<b>\$165,094,098</b>	<b>5.6%</b>
Trust and Legacy Fund*	0	\$423,153,735	\$26,474,491	\$0	6.2%
Long-Term Government Bonds**					5.4%
Intermediate-Term Government Bonds**					5.3%

\*Source: Montana Board of Investments Annual Report (2007)

\*\*Source: Ibbotson December Market Report (2006)

<sup>12</sup> This year's return from commercial real estate is elevated due to a one time easement payment.



## FY 2007 RETURN ON ASSETS FOR CLASSIFIED FOREST LANDS (MCA 77-1-223 – 225)

This component of the TLMD Return on Assets Report fulfills the requirements of Montana Code Annotated section 77-1-223. This code requires that each year the State Board of Land Commissioners provide a report using a specific methodology (MCA 15-44-103) to identify the average return on revenue to trust beneficiaries from Classified Forest Lands identified as class 2 trust lands (MCA 77-4-401).<sup>13</sup> The report must include for each beneficiary:

1. The total acreage of forest lands held in trust;
2. A summary of the asset value for the forested lands held in trust;
3. A calculation of the average return from revenue on the asset value for the forested tracts held in trust; and
4. A listing by each DNRC land office of the total forested acreage administered for the trust beneficiary and a calculation of the average return from revenue on asset value for lands designated to the trust beneficiary.

### Classified Forest Lands

The amount and distribution of forest lands used for this section of the report differs from those shown in *Table A2* because it includes only net classified forest land with water, roads, and other non-forested surfaces deducted. Timber production from lands not classified as forest land is not included in this section. Consequently, the Southern Land Office (SLO), Northeastern Land Office (NELO), and Eastern Land Office (ELO) are not analyzed. The acres identified in this section of the report are identical to acres in FY 2005 and FY 2006 reports.

TABLE 15  
Total Net Classified Forest Land Acres

Trust	CLO	NWLO	SWLO	Total	(%)
ACB	509	11,818	7,944	20,271	4.8%
ACI		3,354	2,069	5,423	1.3%
CS	9,511	192,784	79,002	281,316	66.3%
DB	502	8,309	400	9,211	2.2%
PB	2,371	38,575	26,366	67,312	15.9%
M Tech	1,120	9,818	2,556	13,494	3.2%
SNS	540	9,366	3,506	13,412	3.2%
SRS	7,299	1,626	4,488	13,413	3.2%
UNIV		155	322	477	0.1%
Total	21,852	275,805	126,654	424,329	100.0%
(%)	5.1%	65.0%	29.8%	100.0%	

<sup>13</sup> The methodology used in this section of the report is consistent with the methodology used in previous reports except for a realignment of areas for some of the basic analysis but still in conformance with (MCA 77-1-223 – 225). For detailed methodology, refer to the 2000 “Return on Assets Report.”

A comparison of the classified forest lands and all trust lands is made in *Table 16*. The land distribution by trust on classified forests differs considerably from the distribution of land on all trust lands. This is true for the state in total and for the individual land offices. For example, the Common Schools Trust accounts for about 89.7 percent of the total trust lands in the state, but only accounts for 66.3 percent of the classified forest lands and less than 44 percent of the classified forest lands in the Central Land Office (CLO). Public Buildings constitute 3.6 percent of all trust land, but accounts for nearly 16 percent of classified forest lands. The result of these differences is that contributions to revenue from classified forest lands are likely to differ proportionally from revenue contributions from all trust land.

TABLE 16  
Comparison of Classified Forest and Trust Lands Distribution

Trust	CLO		NWLO		SWLO		Total	
	% of CLO CF*	% of all Trust Land	% of NWLO CF*	% of all Trust Land	% of SWLO CF*	% of all Trust Land	% of CF*	% of all Trust Land
ACB	2.3%	0.8%	4.3%	3.9%	6.3%	4.1%	4.8%	0.6%
ACI	0.0%	3.0%	1.2%	1.1%	1.6%	1.5%	1.3%	1.2%
CS	43.5%	77.9%	69.9%	71.9%	62.4%	74.8%	66.3%	89.7%
DB	2.3%	1.8%	3.0%	2.8%	0.3%	0.5%	2.2%	0.7%
PB	10.9%	8.0%	14.0%	13.0%	20.8%	13.0%	15.9%	3.6%
M Tech	5.1%	0.0%	3.6%	0.0%	2.0%	0.0%	3.2%	0.0%
SNS	2.5%	2.0%	3.4%	3.6%	2.8%	1.6%	3.2%	1.2%
SRS	33.4%	2.5%	0.6%	3.3%	3.5%	1.7%	3.2%	1.2%
UNIV	0.0%	3.7%	0.1%	0.4%	0.3%	2.1%	0.1%	1.3%

\* Classified Forests

The asset value for classified forest land is given in *Table 17*. These estimates of asset value were derived using code procedures (MCA 15-44-103).<sup>14</sup>

TABLE 17  
Classified Forest Asset Value by Land Office and Trust\*

Trust	CLO	NWLO	SWLO	Total	(%)
ACB	149,552	10,530,395	4,925,878	15,605,826	4.6%
ACI	0	2,860,663	821,062	3,681,725	1.1%
CS	3,302,397	185,006,909	45,860,818	234,170,125	68.9%
DB	328,997	7,605,835	221,557	8,156,388	2.4%
PB	1,204,302	32,715,544	15,525,950	49,445,796	14.5%
SM	560,054	8,822,909	1,468,672	10,851,636	3.2%
SNS	248,322	8,478,515	2,035,106	10,761,943	3.2%
SRS	2,337,474	1,654,263	3,071,291	7,063,027	2.1%
UM	0	125,515	158,736	284,250	0.1%
Total	8,131,098	257,800,549	74,089,070	\$340,020,716	100.0%
(%)	2.4%	75.8%	21.8%	100.0%	

\* 2007 constant dollars

While asset values tend to go up each year, these estimates are formulated using a five-year rolling average of net income. This step reduces the influence of any single year on

<sup>14</sup> This year the asset value measurements have been adjusted to match exact code protocol.

the measurement of asset value; however, it leaves the net change of asset value dependent on the first and last year of the rolling average period. Consequentially, shifts in the estimated rate of return are dependent on the net of events in these years.

*Figure 13* shows, by calendar year, the average interest rate charged by the Spokane Farm Credit Bank since 1984. This interest rate is required by law to be used in this report and is the prime component of the capitalization rate used to compute the asset values shown in *Table 16*. Average tax rates are also used in computing the discount rate, but the tax rate adds less than 1 percent to the interest rates. As interest rates continue to fall, the average tax rate assumes more importance in the total discount rate calculation. As shown in *Figure 13*, the interest rate declined in previous years with a slight upturn last year. If rates continue to increase, this will negatively affect the asset values of classified forest lands.

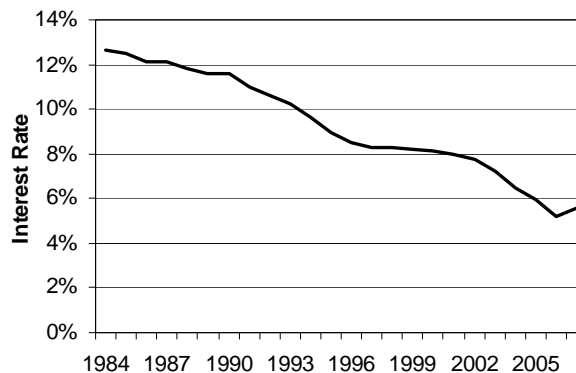


FIGURE 13  
Farm Credit Bank Interest Rate  
Source: MT DNRC (2007)

*Figure 14* shows the trend in stumpage fees. The stumpage rate increased in FY 2004 and continued into FY 2005; however, stumpage decreased in FY 2006 and again in FY 2007. Low numbers in housing starts, as well as, increased imports from Canada have reduced stumpage prices. A positive price rebound will require one or both of these demand and supply trends to change. Overall, these events have negatively affected asset values of classified forest lands.

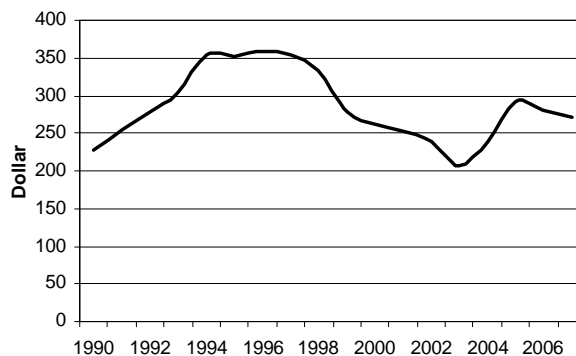


FIGURE 13  
Farm Credit Bank Interest Rate  
Source: MT DNRC (2007)

The ten-year average gross revenue from commodity sales is shown in *Table 18*. The ten-year average has been adjusted to 2007 dollars using the GDP price deflators published by the Bureau of Economic Analysis.

TABLE 18  
Ten Year Mean Gross Revenue on Classified Forest Lands\*

Trust	CLO	NWLO	SWLO	Total	(%)
ACB	2,690	310,795	298,682	612,167	6.9%
ACI	2	77,035	69,076	146,112	1.6%
CS	424,351	3,713,169	1,825,226	5,962,747	66.8%
DB	246	184,325	2,864	187,436	2.1%
PB	5,950	608,979	642,080	1,257,009	14.1%
M Tech	524	159,726	55,480	215,731	2.4%
SNS	547	162,862	181,768	345,177	3.9%
SRS	44,320	40,137	109,198	193,655	2.2%
Univ	0	5,460	5,906	11,366	0.1%
Total	478,632	5,262,488	3,190,280	\$8,931,399	100.0%
(%)	5.4%	58.9%	35.7%	100.0%	

\* 2007 constant dollars

Average annual gross revenue decreased approximately 3 percent in real terms from last year's level. This is the result of losing the relatively high income from an earlier year and replacing it with lower real income in the current year. Again, gross revenue will vary year-to-year depending on the relative size of the income earned in the current year compared to the inflation-adjusted income in the first year.

Net revenue reflects the difference between gross revenue and the state's expense of producing the various commodities available on classified forest land. Average net revenue decreased this year by approximately 5 percent in real terms.

TABLE 19  
Ten Year Mean Net Revenue on Classified Forest Lands\*

Trust	CLO	NWLO	SWLO	Total	(%)
ACB	1,059	160,570	201,722	363,351	10.3%
ACI	0	37,618	50,479	88,097	2.5%
CS	114,490	1,221,610	766,705	2,102,805	59.3%
DB	242	79,776	1,028	81,047	2.3%
PB	2,477	177,794	342,064	522,335	14.7%
M Tech	508	52,797	21,639	74,943	2.1%
SNS	381	59,280	147,796	207,456	5.9%
SRS	16,970	17,258	65,543	99,771	2.8%
Univ	0	2,821	2,128	4,949	0.1%
Total	136,127	1,809,524	1,599,104	\$3,544,755	100.0%
(%)	3.8%	51.0%	45.1%	100.0%	

\* 2007 constant dollars

Appreciation is determined by the difference between the constant dollar average asset value for trust lands in the current year and the constant dollar average asset value for classified forest lands in the previous year.

Table 20 shows the total return on assets for FY 2007 at \$19.7 million. A significant increase in appreciation in the NWLO and SWLO boosted the total return this year.

Asset values in the CLO depreciated following a decrease in average stumpage value in real terms retrieved from CLO lands.

TABLE 20  
FY 2007 Total Return on Classified Forests by Land Office and Trust\*

Trust	CLO	NWLO	SWLO	Total	(%)
ACB	-9,352	794,457	275,130	1,060,235	5.4%
ACI	0	210,109	59,418	269,527	1.4%
CS	-63,819	12,328,169	1,427,803	13,692,153	69.4%
DB	-4,274	537,157	4,139	537,022	2.7%
PB	-29,911	2,150,911	567,557	2,688,557	13.6%
SM	-15,060	583,731	42,693	611,364	3.1%
SNS	-7,806	569,351	177,129	738,674	3.7%
SRS	-126,108	116,371	113,370	103,633	0.5%
UM	0	10,405	4,202	14,607	0.1%
Total	-256,330	17,300,660	2,671,440	\$19,715,771	100.0%
(%)	-1.3%	87.8%	13.5%	100.0%	

\* 2007 constant dollars

The rates of return on assets by land office and by trust for FY 2007 are shown in *Table 21*. The overall rate of return is 6.1 percent. The largest factor influencing this rate is the real increase in stumpage rates in the NWLO and SWLO. If market prices continue to decline however, average stumpage rates in the NWLO and SWLO will shift negatively as they have for the CLO. Overall, return on classified forests increased by approximately 5 percent between FY 2006 and 2007.

TABLE 21  
FY 2007 Return on Asset from Classified Forests

Trust	CLO	NWLO	SWLO	Total
ACB	-5.8%	8.0%	5.7%	7.1%
ACI	0.0%	7.8%	7.3%	7.7%
CS	-1.8%	7.1%	3.2%	6.2%
DB	-1.3%	7.5%	1.9%	7.0%
PB	-2.4%	7.0%	3.7%	5.7%
SM	-2.6%	7.0%	2.9%	5.9%
SNS	-3.0%	7.1%	8.8%	7.2%
SRS	-5.1%	7.5%	3.7%	1.5%
UM	0.0%	8.8%	2.7%	5.3%
Total	-3.0%	7.1%	3.7%	6.1%

## Summary

The estimated return on assets increased in FY 2007 reflecting an increase in five-year average stumpage prices. However, real prices in the FY 2007 dropped compared to FY 2006. If this trend continues, average stumpage prices will follow.

*Table 22* shows a comparison of the percentage of acreage owned and the net revenue earned by each trust. The acreage and earnings are generally comparable; however, the

distribution of earnings changes slightly each year. The Common Schools Trust is higher than last year and Public Buildings is again proportionally lower than in FY 2006.

TABLE 22  
Percentage of Net Revenue and Net Acreage by Trust

Trust	Net Acres	Net Revenue
ACB	4.78%	10.25%
ACI	1.28%	2.49%
CS	66.30%	59.32%
DB	2.17%	2.29%
PB	15.86%	14.74%
SM	3.18%	2.11%
SNS	3.16%	5.85%
SRS	3.16%	2.81%
UM	0.11%	0.14%
Total	100.00%	100.00%

Finally, asset values derived from this methodology do not represent the full market value of Montana's classified forest lands. Instead, they represent a capitalization of forest product values. Other values not captured by this method include, but are not limited to, residential, recreation, scenic, and ecological service values. Thus, this analysis provides only a limited perspective on the total function and value of Montana's classified forest lands.

## APPENDIX

This section provides the analysis details for each bureau's return on assets. Here each bureau's management activity is treated independent of the other bureaus, but many of the analytical methods used are similar.<sup>15</sup>

*Table A1* below indicates the basic analytical method used to show returns to the trusts generated by each bureau.

TABLE A1  
Asset Value Analysis Methods

Asset Class	Method	Inputs
Agriculture	Land valuation	USDA county data, regional land sales, and inflation
Grazing	Land valuation	USDA county data, regional land sales, and inflation
Forest Mgmt	Land valuation	forest class values, regional development, and inflation
Real Estate	Land valuation	appraisals, regional land sales, and inflation

Asset values are based on individual year information as opposed to multi-year moving averages. Single year averages are more volatile but shift in unison with current events. The TLMD's primary method for surface asset valuation is land valuation. For each Bureau this estimation is formulated and determined by the type of information available. Over other methods, direct appraisal of land is pragmatic and helps identify the return on asset that would occur if TLMD lands were to be purchased in a private market by an investor.

Not all trusts in each land office earn revenue every year. The individual trust revenue sources are analyzed independently of other sources. Likewise, some of the trusts show no return in specific bureaus and land offices. Additionally, it is important to note that a bureau may have earnings from other sources that are not part of its classification. For example, REMB may have earnings from classified forest lands. For this reason, information in the main body of the report provides the most comprehensive information on trust returns.

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<sup>15</sup> Every year improvements in information increase the accuracy of acreage measurements as well as other essential data to the financial review of each program.

## A. Forest Lands

One method used to determine the return on assets on forest lands is prescribed in Montana law (MCA 77-1-223). The second method used by the TLMD is more consistent with approaches used in other bureaus. Information derived from this second approach is used in the overall analysis of the return on assets for all trust lands to maintain consistency.

*Table A2* shows the net forest acres by land office and by trust. These numbers have not changed significantly in recent years. Because trust land management is a dynamic process, *Table A2* shifts each year as reclassifications and land sales occur.

TABLE A2  
FY 2007 Classified Forest Acres by Land Office and Trust

Trust	CLO	ELO	NELO	NWLO	SLO	SWLO	Total
ACB	800	0	0	12,187	0	9,073	22,060
ACI	0	0	0	3,375	0	2,137	5,512
CS	13,402	0	800	209,268	0	97,096	320,565
DB	640	0	0	8,583	0	1,176	10,399
PB	2,564	0	0	40,591	0	29,029	72,184
SM	1,267	0	0	10,676	0	3,827	15,770
SNS	585	0	0	10,154	0	3,871	14,611
SRS	11,770	0	0	1,309	0	4,928	18,007
UM	0	0	0	160	0	1,280	1,440
Total	31,028	0	800	296,302	0	152,418	480,548

*Table A3* shows the asset value by land office and trust on forested lands. The method for computing asset values on these lands changed slightly this year. The revised method continues to incorporate state and local market information from the sale of forest lands, as well, as the expertise of appraisers and land managers.

Forested state trust lands are grouped into four categories or classes by land office using the spatial analysis model originally developed in the Real Estate EIS. This process groups lands based on proximity to growth centers, access, infrastructure, and other factors. An average land value for each category by land office is determined based on actual forest land sale information, the expertise of local land managers, and the department's appraiser. These regionalized values are then multiplied by the acres in each category within each land office to determine the total asset value by trust and land office.

The average land value per acre of forest has grown following the adoption of this method last year. Mainly, this is a result of the method capturing intrinsic and non-timber related values. Particularly important to the forest land valuation is the recognition of recreational values, which received limited recognition in the capitalization method used previously. The average asset value per acre of forest is \$1,479.



TABLE A3  
FY 2007 Classified Forest Asset Value by Land Office and Trust

Trust	CLO	ELO	NELO	NWLO	SLO	SWLO	Total
ACB	1,081,585	0	0	20,389,385	0	10,278,533	31,749,503
ACI	0	0	0	5,646,550	0	2,421,026	8,067,576
CS	18,118,646	0	412,000	350,121,350	0	109,993,037	478,645,033
DB	865,268	0	0	14,359,867	0	1,332,060	16,557,195
PB	3,466,994	0	0	67,911,323	0	32,884,950	104,263,267
SM	1,713,528	0	0	17,861,513	0	4,335,529	23,910,571
SNS	790,612	0	0	16,988,960	0	4,385,728	22,165,300
SRS	15,913,255	0	0	2,189,472	0	5,582,208	23,684,934
UM	0	0	0	267,692	0	1,450,021	1,717,713
Total	41,949,887	0	412,000	495,736,113	0	172,663,092	\$710,761,092

During FY 2007 stumpage bid prices fell along with harvest rates. These events eroded revenues, but total return on forest lands remained strong with an adequate contribution from land appreciation. *Table A4* shows the total return on assets on forest lands for FY 2007. In this analysis some areas with no economic activity may still show a return because of the appreciation of the land asset.

TABLE A4  
FY 2007 Total Return on Forest Lands by Land Office and Trust

Trust	CLO	ELO	NELO	NWLO	SLO	SWLO	Total
ACB	41,599	0	0	1,268,552	0	554,809	1,864,960
ACI	0	0	0	353,173	0	115,290	468,463
CS	873,790	45,817	99,587	20,834,325	7,915	5,631,733	27,493,167
DB	33,280	0	0	907,006	0	63,435	1,003,720
PB	137,647	0	0	3,955,810	0	1,749,311	5,842,769
SM	65,905	0	0	1,012,886	0	208,934	1,287,725
SNS	30,435	0	0	968,734	0	208,851	1,208,021
SRS	615,345	0	0	163,263	0	265,829	1,044,437
UM	0	0	0	15,152	0	69,247	84,400
Total	1,798,001	45,817	99,587	29,478,902	7,915	8,867,439	\$40,297,661

*Figure A1* shows a comparison of the estimated return on assets from forested lands for FY 2002 through FY 2007. FY 2003 was 9.4 percent lower than FY 2002. However, increased resource prices made the FY 2004 return on assets 44 percent higher than FY 2003. FY 2005 was 80 percent more than the FY 2004 return on assets, FY 2006 was over twice the return in FY 2005. FY 2007 is 14 percent above the previous year.

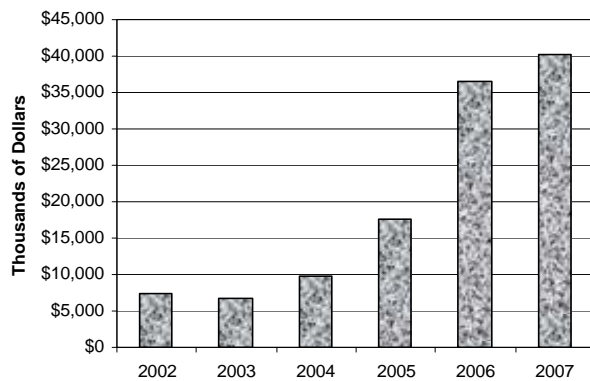


FIGURE A1  
FMB Return on Assets  
Source: MT DNRC (2007)

Table A5 shows the rate of return on assets on forest lands. Rates of return vary substantially between regions and trusts depending on earnings appreciation and the contribution of non-classified forest producers to earnings. Some areas with no timber activities show earnings from other sources and some from land appreciation. These rates of return will vary substantially year to year, depending on the economic activity in each trust and land office. The asset value will also vary year to year depending on the real interest rate and current year activity on the forests. The average rate of return on asset value this year was 6.0 percent percent.

TABLE A5  
FY 2007 Return on Asset from Forest Lands by Land Office and Trust

Trust	CLO	ELO	NELO	NWLO	SLO	SWLO	Total
ACB	4.0%	0.0%	0.0%	0.0%	0.0%	5.7%	6.2%
ACI	0.0%	0.0%	0.0%	6.6%	0.0%	5.0%	6.1%
CS	5.0%	0.0%	24.9%	6.3%	0.0%	5.4%	6.1%
DB	4.0%	0.0%	0.0%	0.0%	0.0%	0.0%	6.4%
PB	4.1%	0.0%	0.0%	0.0%	0.0%	5.6%	5.9%
SM	4.0%	0.0%	0.0%	6.0%	0.0%	5.1%	5.7%
SNS	4.0%	0.0%	0.0%	0.0%	0.0%	5.0%	5.8%
SRS	4.0%	0.0%	0.0%	0.0%	0.0%	0.0%	4.6%
UM	0.0%	0.0%	0.0%	6.0%	0.0%	5.0%	5.2%
Total	4.5%	0.0%	24.9%	6.3%	0.0%	5.4%	6.0%

### Revenue Cost Ratio for FY 2007

Table A6 shows the FY 2007 annual summary of revenue and costs for the FMB. This year's report continues using methodology developed in FY 2004. It is based on information used to prepare the Return on Assets Report rather than using an alternative methodology developed when the report was not issued.

The overall revenue-cost ratio decreased to 1.46 in FY 2007 compared to 2.3 in FY 2006. The decrease in revenue is due to a drop in both harvest levels and stumpage value. Gross revenue decreased by about \$5.5 million in FY 2007. The NWLO had the largest decline in revenue of approximately \$4.5 million.

TABLE A6  
FY 2007 FMB Revenue-Cost Ratio

Land Office	Total Revenue	Total Expense	R/C Ratio
NELO, ELO, SLO	\$448,602	\$114,537	3.92
CLO	585,814	170,577	3.43
NWLO	4,502,445	3,362,655	1.34
SWLO	2,048,708	1,548,183	1.32
Total	\$7,585,568	\$5,195,951	1.46

Costs increased in FY 2007. Total costs shifted from \$4,738,218 in FY 2006 to \$5,195,951 in FY 2007, a 10 percent rise. Expenses, when broken out by land office, are estimated. This implies that the revenue-cost ratio determined for each land office is also an estimated value and may deviate from the true revenue cost ratio.

A comparison between FY 2006 and FY 2007 revenue-cost ratios for all land offices indicates that the ratio decreased. Because the Northwestern Land Office accounts for over half of the revenue, it has the largest impact on the overall ratio.

*Figure A2* shows the revenue- cost ratios from FY 2003 to FY 2007. This year's ratio is the lowest in the past five years. This figure demonstrates a cash flow index, not a full economic analysis. Many costs experienced in the current year would be expensed against future sales in an economic analysis. Long-term program health depends on the sales developed with today's costs being less than the revenue earned on future sales.

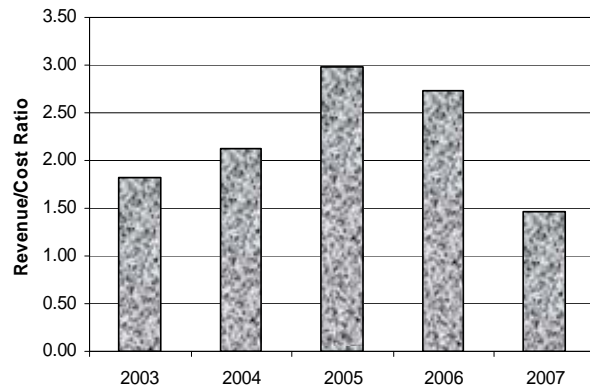


FIGURE A2  
FMB Revenue/Cost Ratios  
Source: MT DNRC (2007)

Forest improvement funds play a key role in maintaining this type of investment spending. In the Forest Management Bureau FI fees are collected in addition to revenues earned on commodity sales. These funds are not included in the return on asset calculation. Instead of being distributed to the trusts these earnings help finance forest improvement operations as an investment in future timber yields. *Table 7* tracks forest improvement dollars from FY 2003 to FY 2007.

Table A7. Forest Improvement Fees

	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007
FI Collected	\$1,363,664	\$2,029,625	\$2,944,559	\$2,875,277	\$1,316,404
FI Expended	\$1,363,664	\$1,580,187	\$1,784,593	\$1,611,188	\$1,668,369

## B. Real Estate Lands

Real Estate Management Bureau programs analyzed in this report include residential lot leases, special leases and licenses, land use licenses, recreational use licenses, and, to a limited extent, land banking. All of the programs differ substantially in information and characteristics. The land sales program is not included in the quantitative analysis, since it involves the liquidation of the land asset. The money from land sales is deposited into the Trust and Legacy fund where it can earn money for the trust through other investments. Land banking sales are instead held in a special fund that facilitates the acquisition of higher valued lands within a limited time frame.

The land base for REMB is small relative to the land base for other bureaus. A substantial share of the money from REMB comes from fees on lands classified as forested, grazing, and agriculture. The rate of return on many of the REMB activities is relatively high. However, because the revenue is dominated by residential lot leases and licenses that have a limited earnings potential, 3.5 percent to 5 percent of the appraised value, the overall rate of return is lower than would otherwise be expected.<sup>16</sup> An exception to these rates occurred in FY 2007 where a substantial easement payment contributed a larger than normal portion of revenue to the bureaus income.

*Table B1* shows the acreage specific to the REMB. Total acreage for FY 2007 is 22,219 acres.

TABLE B1  
FY 2007 Classified Real Estate Acres by Land Office and Trust

Trust	CLO	ELO	NELO	NWLO	SLO	SWLO	Total
ACB	440	0	0	75	0	355	870
ACI	636	0	0	25	20	0	681
CS	11,664	228	1,503	1,265	2,172	258	17,090
DB	372	0	0	44	0	20	436
PB	1,693	0	0	106	0	26	1,825
SM	211	0	6	244	0	0	461
SNS	53	0	80	51	0	14	198
SRS	2	17	5	0	0	60	84
UM	21	0	0	0	0	0	21
Total	15,093	245	1,599	1,809	2,192	733	21,671

*Table B1* shows the estimated acreage classified as “other” that belongs exclusively to REMB. Again, programs in this bureau cover a significantly larger amount of the total trust surface acreage than lands identified in this table. Programs such as recreational use licensing cover virtually the entire state, but occur almost entirely on lands whose primary use is under management of one of the other TLMD bureaus. Acreage numbers are anticipated to change yearly as new programs are implemented to enable the TLMD to earn more money for the trusts through real estate management.

<sup>16</sup> The Land Board raised the rate to 5 percent in 1999. This rate has been “phased in” annually on all lease renewals since 1999. This increase is reflected in the Real Estate returns.

The determination of asset value in the REMB comes from direct appraisal information. Most residential sites as well as other REMB sites have direct appraisal information available. The asset value per acre average differs between land offices.

TABLE B2  
FY 2007 Total Real Estate Asset Value by Land Office and Trust

Trust	CLO	ELO	NELO	NWLO	SLO	SWLO	Total
ACB	2,289,373	0	0	561,270	0	2,123,927	4,974,570
ACI	3,308,924	0	0	190,274	82,014	0	3,581,212
CS	60,691,450	530,400	6,046,424	9,512,279	9,038,565	1,539,952	87,359,070
DB	1,935,977	0	0	332,415	0	117,302	2,385,694
PB	8,809,350	0	0	796,893	0	153,772	9,760,016
SM	1,099,003	0	23,220	1,833,186	0	0	2,955,408
SNS	277,082	0	321,937	381,736	0	86,314	1,067,069
SRS	12,847	39,322	18,833	0	0	358,782	429,784
UM	107,439	0	0	0	0	0	107,439
Total	78,531,445	569,723	6,410,414	13,608,052	9,120,579	4,380,049	\$112,620,262

*Table B2* shows the REMB estimated asset value for FY 2007. The comparatively large per-acre asset value (\$5,069) results from the higher value asset that characterizes most of the land classified as real estate. Residential lots and land in proximity to urban areas is generally of higher value than land with the primary purpose of timber or agricultural production.

The annual return from total assets is calculated by distributing the REMB revenue earned on REMB lands back to the program where they are earned. Any estimated appreciation on REMB lands is then added to the revenue accrual. This is the annual return from total assets shown in *Table B3*. This table represents the estimated earnings (appreciation and net revenue) from all sources in the REMB for FY 2007.

The return is generally largest on those trusts and land offices with the most acreage. Common Schools have over 90 percent of the trust lands in the state and have earned the largest share of revenue. The second largest trust, Public Buildings, received less than 10 percent of the revenue received by Common Schools. The total return of \$12,428,576 is total real estate return for FY 2007.

TABLE B3  
FY 2007 Total Return on Real Estate Lands by Land Office and Trust

Trust	CLO	ELO	NELO	NWLO	SLO	SWLO	Total
ACB	90,447	0	1,639	49,232	0	745,948	887,266
ACI	131,030	0	3,257	31,413	9,784	0	175,483
CS	2,603,796	264,088	496,649	6,038,445	422,561	264,877	10,090,416
DB	79,759	0	282	33,161	1,098	17,561	131,861
PB	349,695	1,294	2,081	73,414	0	18,908	445,391
SM	50,554	0	3,653	451,856	0	91	506,154
SNS	19,946	0	9,713	31,495	0	6,665	67,820
SRS	2,706	6,144	6,365	0	690	72,501	88,406
UM	34,169	84	1,255	0	0	272	35,780
Total	3,362,101	271,609	524,894	6,709,015	434,133	1,126,824	\$12,428,576

Figure B1 shows the actual return on assets for FY 2002 through FY 2007. Compared to previous years, the return on assets for the Real Estate Bureau increased rapidly in FY 2007. This growth reflects a combination of higher appreciation values resulting from a modified valuation approach, higher land values, and most significantly a one time lump sum easement payment.

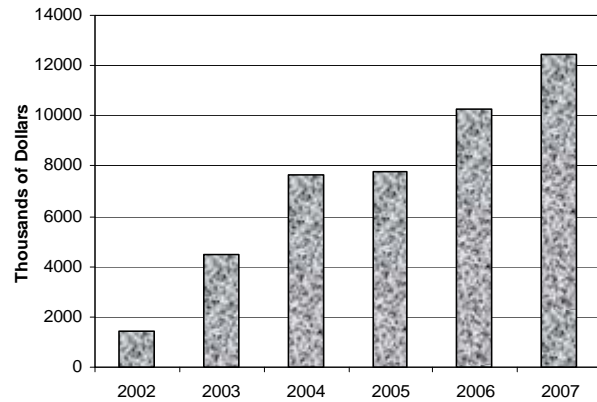


FIGURE B1  
REMB Return on Assets  
Source: MT DNRC (2007)

Table B4 presents the rate of return on the assets by land office and trust for FY 2007. Extremely high rates appear where one time easement payments occurred.

TABLE B4  
FY 2007 Return on Asset from Real Estate Lands

Trust	CLO	ELO	NELO	NWLO	SLO	SWLO	Total
ACB	4.1%	0.0%	0.0%	0.0%	0.0%	36.9%	18.7%
ACI	4.1%	0.0%	0.0%	17.5%	12.4%	0.0%	5.1%
CS	4.5%	51.3%	8.5%	67.3%	4.9%	18.1%	12.0%
DB	4.3%	0.0%	0.0%	0.0%	0.0%	0.0%	5.8%
PB	4.1%	0.0%	0.0%	0.0%	0.0%	12.9%	4.8%
SM	4.8%	0.0%	16.2%	26.1%	0.0%	0.0%	18.0%
SNS	7.5%	0.0%	3.1%	0.0%	0.0%	8.1%	6.6%
SRS	21.9%	16.1%	34.8%	0.0%	0.0%	0.0%	21.5%
UM	33.1%	0.0%	0.0%	0.0%	0.0%	0.0%	34.6%
Total	4.5%	49.1%	8.4%	52.3%	5.0%	27.0%	11.5%

Returns vary in the REMB by region and trust. The overall average is close to the return on Common School land because Common School land dominates other trusts in terms of size. In some cases, the return is large for some land office/trust combinations compared to the overall rate of return. This occurs because the proportion of the total value is quite small relative to the total. The average rate of return is 11.5 percent for FY 2007. This higher than average return stems from isolated events and will not likely be maintained in upcoming years.

## C. Agriculture and Grazing Lands

Agriculture and Grazing lands comprise the largest share of state trust surface lands, accounting for over 91 percent of all surface trust acreage. *Tables C1* and *C2* display the total agriculture and grazing acres, respectively.

TABLE C1  
FY 2007 Total Agriculture Acres

Trust	CLO	ELO	NELO	NWLO	SLO	SWLO	Total
ACB	76	0	0	0	0	7	84
ACI	189	0	1,232	0	0	0	1,421
CS	113,451	76,980	342,980	776	18,616	1,067	553,870
DB	577	477	833	0	0	0	1,886
PB	2,890	0	1,021	0	0	0	3,912
SM	4,695	0	1,633	0	0	0	6,328
SNS	793	0	1,681	0	0	0	2,474
SRS	479	0	344	0	0	0	823
UM	471	696	729	0	0	0	1,896
Total	123,621	78,153	350,454	776	18,616	1,074	572,693

TABLE C2  
FY 2007 Total Grazing Acres

Trust	CLO	ELO	NELO	NWLO	SLO	SWLO	Total
ACB	8,181	0	0	0	0	229	8,410
ACI	36,727	480	13,693	25	3,558	1,358	55,841
CS	838,338	1,146,526	1,305,776	13,935	353,583	77,421	3,735,064
DB	21,190	2,123	3,027	0	0	0	26,339
PB	92,879	1,524	13,105	0	0	1,562	109,070
SM	19,348	228	16,946	320	0	40	36,882
SNS	29,560	723	15,848	0	0	40	46,170
SRS	34,383	184	10,806	0	3,249	0	48,622
UM	3,189	1,998	8,706	88	480	157	14,617
Total	1,083,793	1,153,786	1,389,176	14,368	360,870	80,807	4,082,800

The distribution of agricultural acres is similar to last year with some small revisions. Grazing lands are the single largest category of land among trust lands. With over 4 million acres, there are approximately 7.1 grazing acres for every farm acre in trust lands.

Agriculture and grazing land values on state trust lands are determined separately by identifying a unique per acre average, \$627 and \$596, respectively. An estimate is formulated for each land office and for each land type by combining information from USDA land value surveys with local expertise on land sale prices. This is a revision of the previous approach which combined land types in order to achieve a single per acre average for all AGMB land. The result of this revision is a small reduction in the estimated asset value of AGMB land. Relative to FY 2006, *Table C3* and *Table C4* show a lower asset value for same lands. This difference does not represent a devaluation of the land, but an alteration to the appraisal method.

TABLE C3  
FY 2007 Agriculture Lands Asset Value

Trust	CLO	ELO	NELO	NWLO	SLO	SWLO	Total
ACB	68,901	0	0	0	0	14,036	82,937
ACI	170,261	0	713,847	0	0	0	884,108
CS	102,207,808	28,341,115	198,681,714	2,023,590	12,236,034	2,109,214	345,599,475
DB	519,450	175,686	482,366	0	0	0	1,177,502
PB	2,603,871	0	591,561	0	0	0	3,195,432
SM	4,229,780	0	945,785	0	0	0	5,175,564
SNS	714,346	0	973,822	0	0	0	1,688,168
SRS	431,171	0	199,446	0	0	0	630,617
UM	424,324	256,166	422,168	0	0	0	1,102,657
Total	111,369,911	28,772,967	203,010,709	2,023,590	12,236,034	2,123,250	\$359,536,460

TABLE C4  
FY 2007 Grazing Lands Asset Value

Trust	CLO	ELO	NELO	NWLO	SLO	SWLO	Total
ACB	6,803,311	0	0	0	0	418,874	7,222,186
ACI	30,542,123	163,238	7,319,570	60,188	2,159,484	2,478,219	42,722,821
CS	697,161,753	389,910,567	698,015,442	33,549,451	214,589,603	141,318,494	2,174,545,310
DB	17,621,230	721,881	1,618,252	0	0	0	19,961,363
PB	77,237,869	518,415	7,005,521	0	0	2,850,383	87,612,188
SM	16,089,572	77,664	9,058,675	770,400	0	73,013	26,069,324
SNS	24,581,807	245,827	8,471,440	0	0	73,013	33,372,086
SRS	28,592,554	62,619	5,776,552	0	1,971,703	0	36,403,427
UM	2,651,810	679,459	4,653,799	210,753	291,312	285,973	8,773,106
Total	901,282,028	392,379,670	741,919,251	34,590,791	219,012,102	147,497,969	\$2,436,681,811

*Table C5* and *Table C6* show the total return on agriculture and grazing lands. Approximately 85 percent of this return represents appreciation of land value in the AGMB. Similar to FY 2007 asset values, total return on asset is lower than previous years. This does not equate to a loss in productivity. The magnitude of appreciation has changed in accordance with the new appraisal methodology. As a result a comparison of this return cannot effectively be made with previous years.

TABLE C5  
FY 2007 Agriculture Lands Total Return

Trust	CLO	ELO	NELO	NWLO	SLO	SWLO	Total
ACB	3,862	0	0	0	0	1,644	5,506
ACI	18,425	0	66,193	0	0	0	84,618
CS	7,318,231	2,759,595	11,802,244	174,976	1,154,869	330,805	23,540,720
DB	51,113	6,757	37,325	0	0	0	95,195
PB	286,032	0	45,683	0	0	0	331,716
SM	279,286	0	71,700	0	0	0	350,987
SNS	58,678	0	57,915	0	0	0	116,593
SRS	44,578	0	22,361	0	0	0	66,939
UM	38,776	20,044	36,454	0	0	0	95,275
Total	8,098,981	2,786,396	12,139,876	174,976	1,154,869	332,449	\$24,687,548



TABLE C6  
FY 2007 Grazing Lands Total Return

Trust	CLO	ELO	NELO	NWLO	SLO	SWLO	Total
ACB	332,244	55	55	385	367	26,734	359,840
ACI	1,493,903	6,660	312,582	3,968	105,617	142,907	2,065,637
CS	35,030,770	16,329,483	30,182,711	2,224,135	10,662,742	8,140,274	102,570,114
DB	899,310	27,765	77,293	823	0	924	1,006,114
PB	3,807,917	21,750	287,829	1,684	4,264	177,088	4,300,532
SM	828,605	3,230	376,733	51,911	15	5,306	1,265,801
SNS	1,190,336	9,767	342,229	405	401	4,456	1,547,594
SRS	1,404,263	5,338	233,953	0	100,374	4,295	1,748,223
UM	141,166	34,305	195,203	13,788	14,161	17,152	415,774
Total	45,128,514	16,438,351	32,008,589	2,297,099	10,887,941	8,519,137	\$115,279,630

Finally, *Table C7* and *Table C8* show the return on asset from agriculture and grazing lands. Rates in FY 2007 have resumed a more characteristic trend for the AGMB following a one year spike in FY 2006.

TABLE C7  
FY 2007 Agriculture Lands Return on Asset

Trust	CLO	ELO	NELO	NWLO	SLO	SWLO	Total
ACB	5.9%	0.0%	0.0%	0.0%	0.0%	12.4%	7.0%
ACI	11.4%	0.0%	9.6%	0.0%	0.0%	0.0%	10.0%
CS	7.5%	10.1%	6.2%	9.3%	9.9%	16.6%	7.1%
DB	10.3%	0.0%	8.0%	0.0%	0.0%	0.0%	8.4%
PB	11.5%	0.0%	8.0%	0.0%	0.0%	0.0%	10.9%
SM	6.9%	0.0%	7.9%	0.0%	0.0%	0.0%	7.1%
SNS	8.6%	0.0%	6.2%	0.0%	0.0%	0.0%	7.2%
SRS	10.9%	0.0%	11.7%	0.0%	0.0%	0.0%	11.1%
UM	9.6%	8.1%	9.0%	0.0%	0.0%	0.0%	9.0%
Total	7.6%	10.1%	6.2%	9.3%	9.9%	16.6%	7.2%

TABLE C8  
FY 2007 Grazing Lands Return on Asset

Trust	CLO	ELO	NELO	NWLO	SLO	SWLO	Total
ACB	5.1%	0.0%	0.0%	0.0%	0.0%	6.8%	5.2%
ACI	5.1%	4.2%	4.4%	7.1%	5.1%	6.1%	5.1%
CS	5.3%	4.4%	4.5%	7.1%	5.2%	6.1%	4.9%
DB	5.4%	0.0%	5.0%	0.0%	0.0%	0.0%	5.3%
PB	5.2%	4.4%	4.3%	0.0%	0.0%	6.6%	5.2%
SM	5.4%	4.3%	4.3%	7.2%	0.0%	7.7%	5.1%
SNS	5.1%	4.1%	4.2%	0.0%	0.0%	6.5%	4.9%
SRS	5.2%	8.9%	4.2%	0.0%	5.3%	0.0%	5.0%
UM	5.6%	5.3%	4.4%	7.0%	5.1%	6.4%	5.0%
Total	5.3%	4.4%	4.5%	7.1%	5.2%	6.1%	4.9%

## D. Employee Distribution and Expenses

The allocation of expenses between land offices is based on several factors. The most important factor is the distribution of employees between the land offices shown in *Table D1*. Headquarters, or regional administrative employees, are allocated based on the distribution of regional employees. Fractional employment describes those employees who work in one or more bureaus or land offices. The table does not include employees funded through either forest improvement or general fund monies. There are a total of 132 filled positions, although the table reflects only those “filled” throughout the year.

TABLE D1  
FY 2007 Final Allocation of FTE

Bureau	CLO	ELO	NELO	NWLO	SLO	SWLO	Total
AGMB	5.86	4.41	10.67	0.00	2.01	0.80	23.75
FMB	4.63	0.51	0.90	45.17	0.00	18.54	69.76
MMB	1.72	3.43	6.87	1.72	1.72	0.00	15.45
REMB	3.66	1.10	0.00	10.06	1.83	6.40	23.05
Total	15.87	9.46	18.44	56.95	5.55	25.75	132.01

Lastly, on the following page *Table D2* shows the total acres by bureau, land office, and trust. Acreage from this table makes up the base land data from which all return on assets are calculated.

TABLE D2  
FY 2007 Total TLMD Acres

Office	Bureau	ACB	ACI	AES	CS	DB	GF	OTH	PB	SH	SM	SNS	SRS	UM	Total
CLO	Agriculture	76	189	-	113,451	577	-	-	2,890	-	4,695	793	479	471	123,621
	Grazing	8,181	36,727	-	838,338	21,190	-	-	92,879	-	19,348	29,560	34,383	3,189	1,083,793
	FMB	800	0	-	13,402	640	-	-	2,564	-	1,267	585	11,770	0	31,028
	REMB	440	636	-	11,664	372	-	-	1,693	-	211	53	2	21	15,093
	MMB*	22,373	41,768	-	1,350,873	25,367	5	40	92,953	-	42,664	49,461	50,457	9,681	1,685,641
ELO	Agriculture	-	0	-	76,980	477	-	-	0	-	0	0	0	696	78,153
	Grazing	-	480	-	1,146,526	2,123	-	-	1,524	-	228	723	184	1,998	1,153,786
	FMB	-	0	-	0	-	-	-	0	-	0	0	0	0	0
	REMB	-	0	-	228	-	-	-	0	-	0	0	17	0	245
	MMB*	-	480	-	1,307,536	-	-	-	1,080	-	228	766	141	3,165	1,313,396
NELO	Agriculture	-	1,232	-	342,980	833	-	-	1,021	0	1,633	1,681	344	729	350,454
	Grazing	-	13,693	-	1,305,261	3,027	-	-	13,105	1,270	16,946	15,848	10,806	8,706	1,388,661
	FMB	-	0	-	800	0	-	-	0	0	0	0	0	0	800
	REMB	-	0	-	1,998	0	-	-	0	6	6	80	5	0	2,094
	MMB*	-	22,168	1,992	2,053,599	4,309	-	80	5,487	1,276	26,492	15,481	8,510	16,712	2,156,105
NWLO	Agriculture	-	0	-	723	0	-	-	0	-	0	0	0	0	723
	Grazing	-	25	-	13,935	0	-	-	0	-	320	0	0	88	14,368
	FMB	12,187	3,375	-	209,268	8,583	-	-	40,591	-	10,676	10,154	1,309	160	296,302
	REMB	75	25	-	1,317	44	-	-	106	-	244	51	0	0	1,862
	MMB*	12,732	4,000	-	262,228	9,659	-	-	40,974	-	12,176	10,166	1,469	524	353,928
SLO	Agriculture	-	0	-	18,616	-	-	-	-	-	-	-	0	0	18,616
	Grazing	-	3,558	-	353,583	-	-	-	-	-	-	-	3,249	480	360,870
	FMB	-	0	-	0	-	-	-	-	-	-	-	0	0	0
	REMB	-	20	-	2,172	-	-	-	-	-	-	-	0	0	2,192
	MMB*	-	5,178	-	433,431	-	20	-	-	-	-	-	3,850	1,120	443,599
SWLO	Agriculture	7	0	-	1,067	-	-	-	0	-	-	-	0	0	1,074
	Grazing	229	1,358	-	77,421	-	-	-	1,562	-	40	40	0	157	80,807
	FMB	9,073	2,137	-	97,096	1,176	-	-	29,029	-	3,827	3,871	4,928	1,280	152,418
	REMB	355	0	-	258	20	-	-	26	-	0	14	60	0	733
	MMB*	11,487	3,655	-	207,222	1,835	-	-	32,312	-	4,707	4,516	9,061	2,553	277,349
Total	Agriculture	84	1,421	-	553,817	1,886	-	-	3,912	0	6,328	2,474	823	1,896	572,640
	Grazing	8,410	55,841	-	3,735,064	26,339	-	-	109,070	1,270	36,882	46,170	48,622	14,617	4,082,285
	FMB	22,060	5,512	-	320,565	10,399	-	-	72,184	0	15,770	14,611	18,007	1,440	480,548
	REMB	870	681	-	17,638	436	-	-	1,825	6	461	198	84	21	22,219
	MMB*	46,592	77,249	1,992	5,614,889	41,171	25	120	172,806	1,276	86,267	80,389	73,488	33,754	6,230,018
Grand Total		78,016	140,704	1,992	10,241,974	80,232	25	120	359,796	2,551	145,708	143,842	141,023	51,728	11,387,711

\*Mineral Acres are based on the oil and gas acres, which comprise the most mineral subsurface acres.